SKYWARD *HO!*

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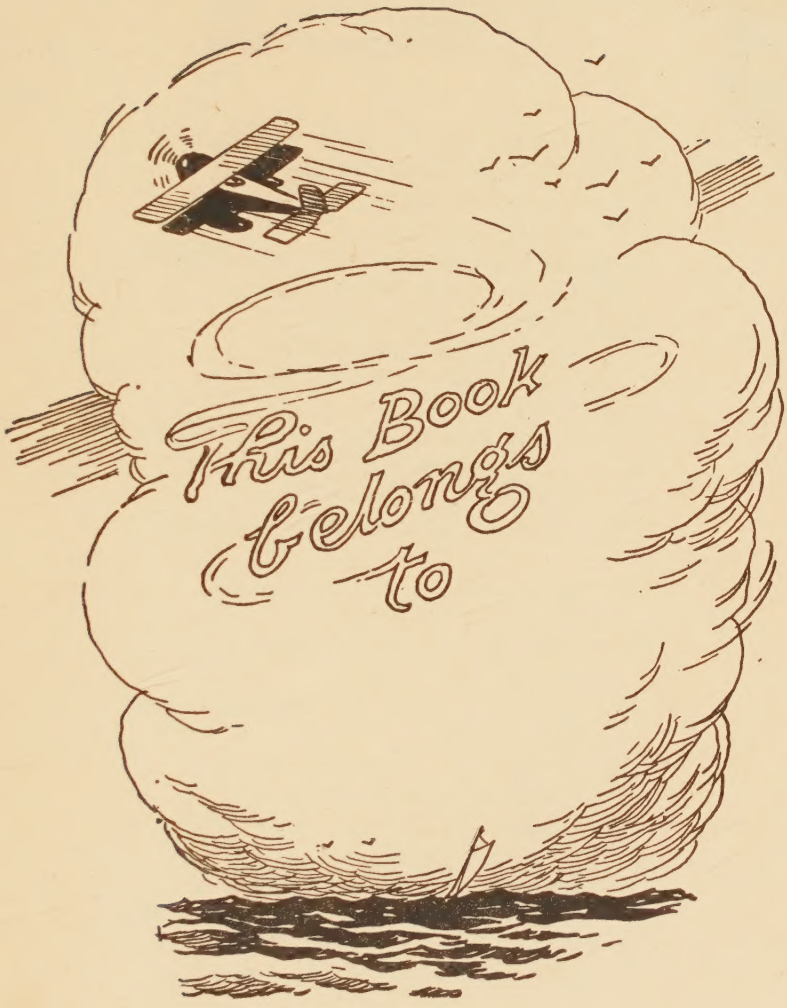
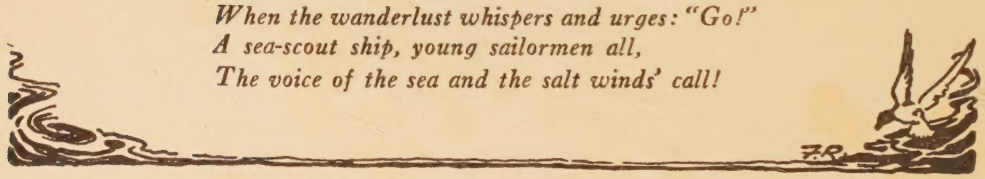

This Book
belongs
to

THE CALL

BY EDMUND LEAMY

In olden days when the wanderlure
With its magic and urging goad
Came to a lad and said to a lad:
"Follow the open road;
Go down to the sea where the proud ships are—
Clipper, or brig, or barque—
And sail away to a distant bay,
Trackless sea at the break of day,
A heave and a haul, and a rolling sway,
And again the dark."
There was nothing on earth for a lad to do
But to run away, for a lad that's true
And is worth his salt cannot but obey
The wanderlust call when it cries: "Away!"

But these be days when the wanderlure
(Oh, ever it whispers low!)
Comes to a lad and says to a lad:
"Follow the way I show;
Go down to the scouts, to the staunch sea-scouts—
Many the troop and strong—
And join the ranks of such lads as you,
Sturdy lads and as brave and true.
Oh, the heave of a deck and the rolling blue,
And a chantey song!"
And this is the life for a lad to know
When the wanderlust whispers and urges: "Go!"
A sea-scout ship, young sailormen all,
The voice of the sea and the salt winds' call!



The U. S. Air Mail

SKYWARD HO!

Edited by

FRANKLIN K. MATHIEWS

Chief Scout Librarian
Boy Scouts of America

PROFUSELY ILLUSTRATED

Published with the Approval of
THE BOY SCOUTS OF AMERICA

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THE BOY SCOUTS OF AMERICA

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FOREWORD

This is a wonder age for a boy. Every day almost he is thrilled with exciting news of man's latest conquests of earth and sky. The transoceanic flights made by many American flyers has been followed by accounts of "Lindy's" further triumphs and Commander Byrd's hazardous mapping of the South Pole. New air-mail lines are being established and air-passenger service developed from Coast to Coast and from the Great Lakes to Key West and the Republics of South America beyond. All this scientific and commercial advance makes a boy supremely happy. Happy as a lark, and more so, for the world has at last "caught up" with him, and his elders accordingly are less likely to accuse him of being "always up in the air."

"Skyward Ho" is just the book for the time, with its high adventure in very truth. In its pages, men of daring perform glorious exploits in the air and on the sea. Stories and articles alike fairly blaze with exciting experiences. Naturally so, for a goodly number were written by such popular authors with boys as, Raoul Fauconnier Whitfield, Thomson Burtis, Arthur B. Reeve, Irving Crump, J. Allan Dunn, Mather Brooks, Francis A. Collins, Captain A. P. Corcoran. And, of course, "Uncle Dan" Beard is there with more of his delightful reminiscences and how-to-make ideas.

The vivid illustrations, too, also guarantee that the stories are sure to delight the heart of all real boys. Nearly every picture arrests attention, luring the reader on to find out what it's all about. And what it's all about is thrilling adventure. Adventure! That's the life for a boy: he can never get enough of it. He will find a plenty in "Skyward Ho."

FRANKLIN K. MATHIEWS,

Chief Scout Librarian.

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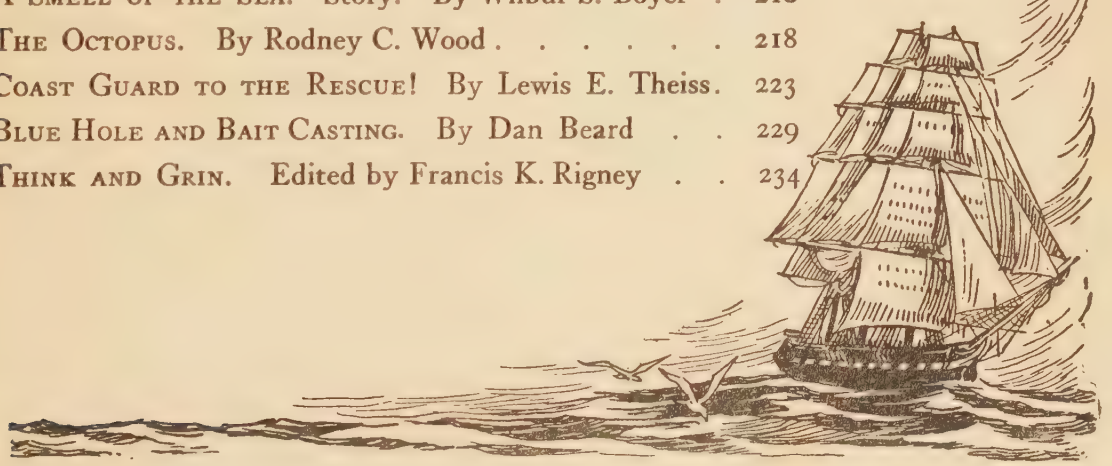
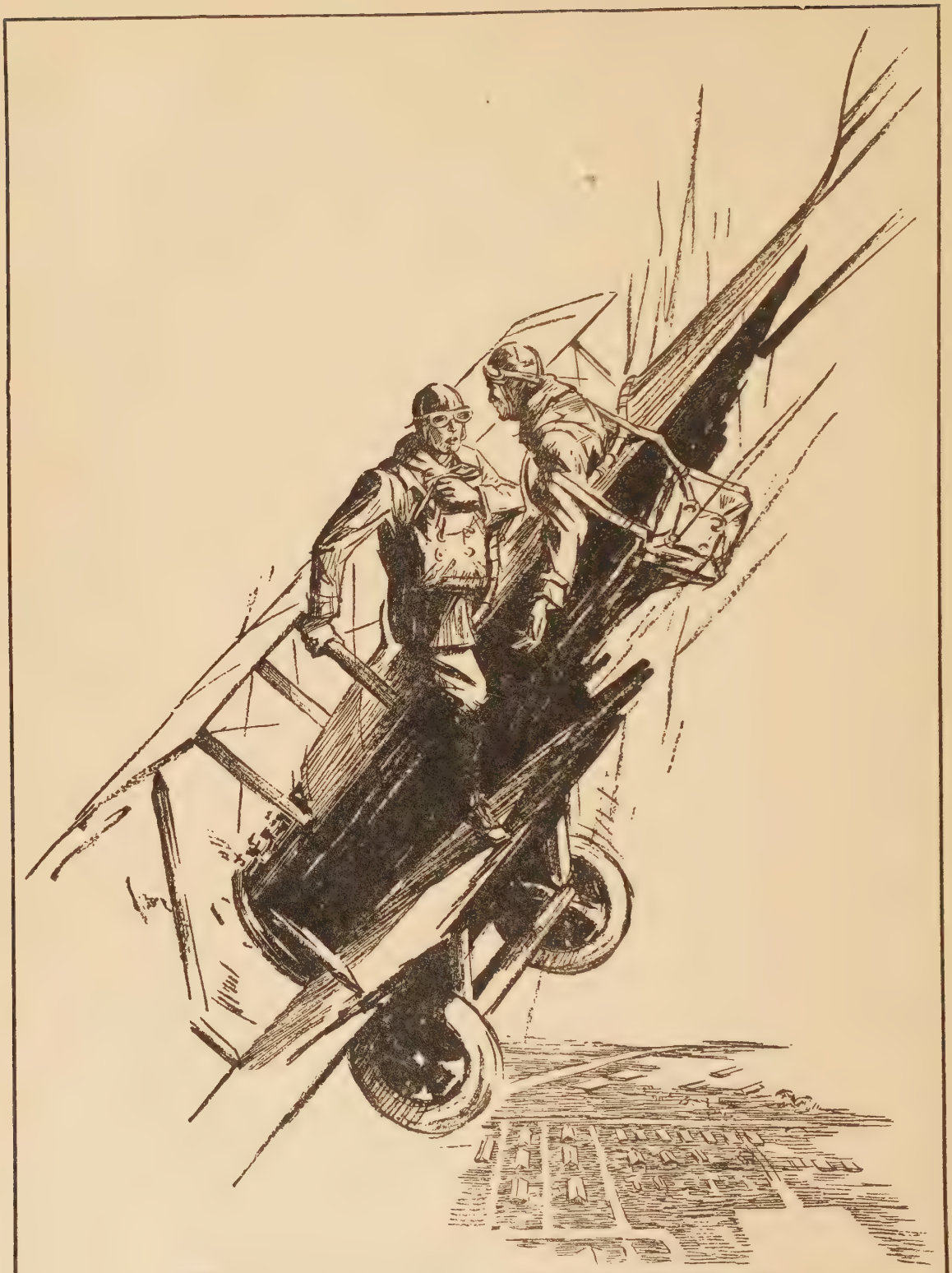




"Quick!" he shouted above the screaming of the plane's wires. "We'll make it, Bert!"

Silver Wings

By Raoul Fauconnier Whitfield

Illustrated by J. Sanford Hulme

HE was no longer Cadet Barry Lewis. Sam Brown belt, gold shoulder bars—and silver wings! He had dreamed of the day when he would wear them—these silver wings. They symbolized hours of desperate mental effort, minutes of skill and work in the air. Ground work and air work, application and courage—all had contributed to this hour. He was no longer a cadet. Lieutenant Barry Lewis—a flying officer! The goal had been attained.

Coming out from the adjutant's office into the nasty blow of a Texas norther, he had a broad grin on his lean, browned face. His eyes sparkled and he walked more erectly than ever. An enlisted man, a member of the ground crew outfits, snapped up a salute—and Barry returned it with a thrill running through his entire body. His first salute!

His pride was pardonable. He had been through a great deal, had fought many battles with himself before he had been eligible to wear the silver wings on the olive drab of his uniform. There had been times when failure seemed a certainty, success far beyond his reach. It had been a tough battle—all of the way. And he had won.

He reached the corner of the barracks building in which he had been quartered. He would move his few things over to the officers' barracks now. Life would be different. The wings made a change; the barriers were down now. He was *actually* a flyer!

Suddenly the smile left his face. His eyes met those of Cadet Bert Reade. And Cadet Reade's brown eyes held a peculiar expression, half of amusement, half of disgust. There was no doubt about the expression—or its meaning.

Lieutenant Barry Lewis pulled up sharply. His own gray eyes bored into those of the other man. A salute was due, and that was what he was waiting to receive. Instead, Cadet Reade laughed. It was a nasty laugh. Then, without a word, leaving Barry standing in the barrack's path, rigid and slightly pale, the cadet turned away, rounded the corner of the long, white building—and was gone.

For several seconds Lieutenant Lewis stood motionless. He had been in Cadet Reade's class in Ground School. He had even coached the other man in gunnery work, in aerial observation work. He had noted the change. Now, because Cadet Reade had been dropped back a few grades, and was consequently outranked by Barry, he had failed to play the game as a soldier should play it. He had refused to recognize Barry as an officer should be recognized.

Barry Lewis relaxed suddenly. His fingers unclenched, his eyes became softer in expression. He liked Bert Reade a lot. They had been real pals. But Bert was a cadet—and he was an officer. He had won the right to be an officer. He smiled grimly. When he entered the barracks and the other cadets sprang to

their feet he shouted an almost gay "At ease!"

But twenty minutes later he had reported Cadet Bert Reade for failure to salute an officer. And it was not such a minor infraction of the code—because, as Barry had stated in his report, it had been done deliberately. Colonel Hasting read the report, and was puzzled. He sent for Cadet Reade, talked with him. After which he confined the cadet to camp for ten days. For Barry was an officer—and wore the silver wings.

There was considerable talk in the cadet barracks. The cadets could not quite understand the affair. Barry had joked with them, had been the same as ever. The silver wings, the majority of them felt, had not given him a big head. He was a good scout. They told Cadet Reade as much. But he was too bitter to listen to their words. Disappointment had caused him to laugh at his comrade, when he had first seen him wearing the silver wings. He had been ashamed, had hated himself for that sneering laugh, almost immediately. That was why he had turned away.

But Barry had reported him! That was the thing that hurt. Ten days of camp confinement—because Barry had reported him! It seemed so small. Even smaller than his laugh, and his failure to salute. It bred in Cadet Reade a hatred that he could not down.

Two days later he met Barry on the flying field. He saluted, with cold eyes and an expressionless face. Barry returned his salute in a similar manner. And then Cadet Reade got a little surprise.

"Cadet Reade—you are to go up above for final stunts with me." Barry's tone was like ice. "I'll tell you what I want you to do when we get up above. Lieutenant Mannfret is ill—I am taking his place. Try not to freeze on the controls."

Bert tensed at Barry's last words. They were insulting. With an effort he checked the words which wanted to come from between his lips. He got himself under control, smiled grimly.

"Very well, *sir!*" he said slowly, and moved toward the ship nearest the lieutenant.

As he climbed into the front cockpit, after strapping on his 'chute, there was a bitter smile on his face. Barry Lewis was to give him his final instruction in stunting. *Lieutenant* Barry Lewis was to make the air safe for him—while he practised making the air safe for himself! Within a week *he* would be an officer, unless something unforeseen occurred—and yet now he must take instructions from the man who had treated him like a child, from the man who had reported him! Because Barry Lewis was wearing the silver wings he had taken advantage—

"Ready, Cadet?" Barry's voice, sounding above the low roar of the Curtiss two-seater's engine, interrupted his thoughts.

"Yes, sir!" he replied, and the two-seater rolled forward, handled finely under the practised hands of Lieutenant Barry Lewis.

They got into the air, and the ship commenced a slow but steady climb for altitude in which to perform stunts. It was probably to be Cadet Reade's last flight—he should have been slightly excited at the thought. His last flight before getting the wings he had worked so hard to win! But he was not in the least excited. He sat rigidly in the front cockpit—the place of the cadet when an officer was riding with him. There was sullenness within him—and hatred.

"Silver wings!" he muttered to himself

as the Curtiss training ship climbed upward. "Taking an instructor's place. Thinks he's about the greatest flyer in the world! Guess he's forgotten all about the time I worked with him all night on rigging and wireless code."

But Cadet Reade was wrong on that point. Lieutenant Barry Lewis, climbing the ship from the rear cockpit, handling the joy stick and rudder with a calm skill, had *not* forgotten that time. He was thinking of it as the Curtiss reached an altitude of three thousand feet. With any other cadet as a student-passenger the sense of responsibility would have pleased, thrilled Barry. But with Bert Reade in the front cockpit he felt only a dull hurt. Bert had refused to recognize him—until punished. He had sneered at the silver wings.

The Curtiss climbed on up into the cloudless sky—bearing two humans as passengers. And both of them were thinking of other things than the job to be done. Which is not good—in the air.

At five thousand feet Barry Lewis rattled the joy stick violently, cut the engine and shouted to the cadet in the front cockpit.

"Take the controls, Cadet! Keep her at this altitude, or within five hundred feet of it. Do figure eights and shallow spirals until I tell you to stop."

Bert Reade made no reply. Anger was surging within him. Figure eights and spirals were not exactly stunts. He had finished with that sort of thing weeks ago. He believed that Barry was simply trying to mock him—making him do childish stuff. Childish for the finished flyer, at least.

And again the cadet was wrong. He did not know that Captain Bracket, officer in charge of flying, was on the field and watching the two-seater in which he and Barry were flying. But Barry knew it, and because he guessed the state of Bert Reade's mind he had decided to give him a chance to feel the ship out in simple maneuvers.

Bert flew the two-seater sloppily. His execution was not bad, could not be detected from the ground. But Barry, riding behind the cadet, could feel every motion of the plane. The air was bumpy; it was early in the afternoon and the day was hot.

Barry rapped sharply on the side of the fuselage. It was a dual control plane; he cut the engine, and nosed the ship down, taking the stick away from the cadet with a sharp jerk.

"Make your execution smoother!" he snapped. "She's slipping on the banks. Do a few more figure eights, then go into some spins and loops—and keep her above three thousand."

He felt the joy stick jerked away from his fingers with a real savageness as Bert Reade took control from the front cockpit. The figure eights that followed were smoother—and yet he felt that the cadet could have made them smoother yet—had he wanted to fly at his best. There had never been anything poor about Bert's flying. It was his class work that had kept him a cadet while Barry had been made an officer.

Suddenly the nose of the ship went down. Barry felt the sharp kick of the rudder that sent the Curtiss into a swift spin. Downward the two-seater plunged, whirling like a top. She came out of it in a rush, and for a second the controls were in neutral. She plunged toward the earth—not spinning.

"Pull her out!" Barry shouted, but the ship continued to drop toward the field below. The wind was screaming through her wires, shrilling in the rigging.

"Pull her up!" Barry shouted for the second time, and she came out of the dive

with a rush. The engine roared; Bert zoomed her straight to the skies, gaining altitude on the momentum of the plunge downward.

Lieutenant Barry Lewis's lips were set in a tight line. He had not instructed the cadet to zoom her. There was a second of indecision, in which he contemplated taking control away from the man in the front cockpit and bringing the plane to the field. If he reported disobedience in the air it would go hard with Bert.

He dismissed the thought with swift shame that he had contemplated it. The Curtiss had been leveled off. Bert was flying toward the center of the field again.

"Turn her over!" Barry ordered sharply. "Put her over in about five loops—and let her fall out of the last one. Then pick her out of the spin—and make a dead-engine landing. That's all."

The helmeted head of the man in the front cockpit jerked downward and back again in a brief nod. The engine had been throttled down somewhat, and it roared in full voice now.

Suddenly the nose of the ship went down, but the engine was not cut. It continued to roar as loudly as ever. Bert Reade was getting speed for the upward zoom of the first loop. The plane came up with a rush, was over on her back in a flash. For a split second the heads of the flyers hung toward the earth—and then the ship was over and coming down with a rush. Then it happened—with that suddenness and unexpectedness that almost all things happen in the air.

There was a sharp cracking; the wing at the left of the two men suddenly buckled, jerked violently upward and out of line! At the same time the ship was leveled off from its downward rush by the cadet. The engine roared even as Barry screamed a warning—a warning to the cadet *not* to use power!

The pull of the engine completed the damage. The left wing crackled again. Both surfaces were out of line now. A strut collapsed; wires snapped and sang through the air. The plane lurched badly. The strain of the loop had caused the wing collapse; the engine pull had finished the job. There was only one chance now!

Bert Reade jerked his head around as Barry snapped his safety belt and rose in the rear cockpit. The lieutenant caught the expression of panic in the cadet's eyes, fought down the fear which was gripping at him. He moved the joy stick forward slightly. The throttle he had already jerked back.

"Steady!" he called. "Use your 'chute, Bert! Get clear before you jerk that release ring. It's all right, Bert!"

He kept his own voice steady with difficulty. The theory of going over the side with a 'chute was one thing. He'd had it drilled into him for months. So had Bert Reade. But now it was a case of putting the theory into practise.

He saw Bert's hands fumble at his pack, which was strapped on his back. The ship had begun to go over in a slow spin; he dodged beneath the fuselage level as a taut wire was suddenly snapped and twisted across the fuselage in a violent, screaming whip.

When he looked up again Bert Reade was facing him. There was stark terror on the cadet's face—and that terror came close to breaking Barry Lewis. They were down to two thousand feet. It was almost easier to stay in the ship and crash—

He looked down as the stick, which he had released, rattled against his right leg. And his eyes caught the gleam of the silver wings, the edge of them, showing from within the folds of his light flying

coat. Normally the flying officers did not wear their winged uniforms in the air. But the Colonel's order for Barry to replace the lieutenant who was ill had caught him ready for a trip to town, and he had hurried to the field, only stopping to take his leather flying coat, helmet, and pet goggles.

The gleam of that one silvered wing seemed to give him a sudden courage. He had fought for that gleam of silver, had worked for it! It meant something. It meant that he was supposed to possess the courage for an emergency. It meant that he had qualified to face just such a situation as this! The Colonel had believed that. He was a *flyer*—that was the message, the meaning of those beautiful silver wings!

His eyes met those of Bert Reade again, but this time they were cold, grim. His voice was low—but steady.

"Get over the side, Bert! I'll follow! Count five—then jerk that release ring! Hurry—we're getting into——"

Less than ten seconds had elapsed since the wing had collapsed utterly. It seemed an eternity to Barry Lewis. He saw Bert jerk himself upright in the fuselage. He saw him reach down, knew that he was snapping the buckle of the safety belt. The Curtiss was starting to spin.

A spasm of fear twisted the cadet's face as he looked into Barry's eyes again. But Barry Lewis had found courage—and that courage shone in the depths of his gray eyes.

"Quick!" he shouted above the screaming of the plane's wires. "We'll make it, Bert! Get loose from the——"

He saw the sudden change in the cadet's expression. Bert Reade flung a leg over the side. He seemed to smile. It was something like a smile, at any rate —and then, as the ship twisted into a faster spin, his body seemed to drift clear. He was gone!

Barry Lewis closed his eyes for the fraction of a second. His right hand was clutching the nearest strut of the screaming, twisting plane. His left touched the rough, silvered surface of his wings.

Five seconds later he was dropping toward the field. He counted five—jerked the release ring of his lead parachute. He heard the smaller spread of silk snap from the pack, spread. Then, seconds later, he heard the crackling of the great spread of silk the lead parachute had jerked free.

There was a terrific jerking at his shoulders. He sucked in a great breath of the air—and drifted slowly downward. When his eyes were free from tears, caused by the fall, he glanced downward. A few hundred feet below Bert Reade was dropping down beneath the spread silk of his own 'chute. And once more Barry Lewis raised the fingers of his left hand—and touched the silver wings on his left breast.

Colonel Hastings smiled into the keen eyes of Captain Eric Bracket. From their position in the Colonel's field office they could see the two lieutenants strolling toward the officers' barracks, side by side.

"When I sent them up together," the Colonel said slowly, "I never, of course, thought that the ship would break up. But something told me that the flight would either smash every spark of friendship—or bring back the full fire of it."

Captain Bracket nodded his head. "They showed fine courage," he said simply. "Reade first—and Barry Lewis sticking until Reade got clear."

"They'll both make splendid officers," the Colonel mused in a low tone. "It takes a man to wear them, and it *makes* a man—to wear them—the silver wings."

Lindbergh and the Boy Scouts

By Peter O. Lamb

IF there were any Boy Scouts at Le Bourget when Lindbergh brought his *Spirit of St. Louis* to rest on the night of May 22nd, 1927, they were lost in that maelstrom of Parisians who tore up the iron railings of the field and engulfed the regiment of soldiers and police who were there to preserve order. But in the days that followed in France, in Belgium and in England, every little while a small khaki-clad figure would bob up under the nose of the transatlantic flyer and ask, "Were you a Boy Scout?" Before the year was over he was to see more Scouts probably than any man living, for wherever he went they were there—holding the line of spectators, ushering, running first aid stations, guarding the *Spirit of St. Louis*—doing the hundred and one things that the community assigns to its Boy Scouts.

At Lindbergh's home-coming to Washington, the route to the Washington Monument, where the main reception was held, was manned by Boy Scouts, who took the place of the police. It is significant that the crowds which the police of Paris and London failed to check, held good-naturedly against the slender weight of the boys. From Washington Lindbergh sent his first message to the Boy Scouts. To a Florida Scout Leader, he said: "Tell the Boy Scouts I am with them. Their Motto 'Be Prepared' is the greatest factor for success in life."

It was at New York that the Boy Scouts of America finally learned the answer to that question so many French, Belgian and British Scouts had asked of Lindbergh, "Were you a Boy Scout?" The day Lindy came roaring to the great city with his escort of pursuit planes, the Executive Board of the National Council was in session. They made the Lone Eagle an Honorary Scout. Only nineteen men have had this honor bestowed on them. Every name on that list is a figure of national, if not international reputation: they represent the utmost in our day in daring and worthwhile adventure. Notice of the action of the Boy Scouts of America was carried to Lindbergh by two Eagle Scouts. At the home of Mr. Clarence Mackay at Roslyn, Long Island, a brilliant company was assembled to honor the famous flyer when word was brought to him of the Scout messengers. A little while earlier Lindbergh had refused to grant an interview to newspaper reporters; now he left the social élite of New York to meet the Scouts, took them out on the lawn, and talked with them for a quarter of an hour. It was inevitable that they should ask, "Were you a Boy Scout?"

When residing in Washington while his father was in Congress, and soon after he came of Scout age, Lindbergh told the boys, he had been eager to become a Boy Scout. He got in touch with the Scoutmaster of a nearby Troop, and began to prepare his Tenderfoot tests. Just as he had been ready for his initiation the family moved back to Little Falls, Minnesota, and thereafter moved so frequently with trips to Detroit, to the Pacific Coast and many

Boy Scouts of America
Fellow Scouts:

You scouts of today are the fliers of tomorrow.

Your motto "Be Prepared" is the greatest factor in life. Your Merit Badge requirements covering as they do such important phases of aviation as the theory of the airplane, helicopter, ornithopter, spherical and dirigible balloons, types and makes of engines used, aviation and aerostation and the practice in model construction is the finest sort of preparedness for aviation.

I cannot be too enthusiastic in urging you Scouts and your non-Scout friends to make an intensive study of Merit Badge aviation.

Perhaps in cooperation with the local flyers you may be able to secure other very important information in actual flying operations.

With very best wishes to Scouts everywhere,

I am cordially yours,

Charles A Lindbergh

Charles A. Lindbergh

other places, that he had never been able to carry out his ambition.

A few days later, coming back in triumph to St. Louis, he found a whole section of the long parade given over to the Boy Scouts of that city. They had a reception for him all their own. There Troop number 2 made him a member of its Flying Eagle Patrol, presented him with its badge, and gave him a Scout knife as a memento of the occasion.

Lindbergh's great ambition was to make America "air conscious." When he set out on the tour of the country, under the auspices of the Guggenheim Foundation for the Promotion of Aviation, that covered 22,000 miles, with stops at sixty-eight cities, it is doubtful that anybody had any idea of the magnitude of the Scout contacts he was to make. It is estimated that ten million people saw him.

At least 250,000 Scouts were among his audiences. The stories of the things they did in the Lindbergh receptions would fill a book. And never did a message fall on ears more eager. Lindbergh wanted to stir the country to the value of aviation; half a million and more Boy Scouts met him more than half way with a desire to take to the air the first moment they had that chance. Lindbergh's own ambition to be a Boy Scout, the Scout stuff he put into practice "on his own" on the Minnesota farm with its woods and river, resulted in his meeting his Scout audiences with keen pleasure. The flowers and fruit and candy people showered on him in every town he visited he entrusted to Scouts to take to hospitals, orphanages and asylums. He smiled on them when, as they did in numerous places, they formed his escort or policed the landing fields. He saw them manning first-aid stations. At nearly every stop an Eagle Scout or two was detailed to him as personal aide or messenger. Many a Scout to-day treasures his Eagle Badge, Honor Medal, or some other badge for which he had qualified, because it was presented to him by the Lone Scout of the sky, as Dr. John H. Finley so happily described him.

The interest of the Boy Scouts along the Lindbergh route in the *Spirit of St. Louis* was second only to their interest in the flyer. In a great many places Scouts were detailed to guard the plane, and it should be written to their credit that never once did they permit any souvenir-hunting hands to be laid on it. It is a proud record in the light of the damage done to it in many places.

Lindbergh was not merely glad to do everything he could to help the Boy Scouts to "Be Prepared" in the larger sense, he was eager that they should be prepared for their day in aviation. About the time in Washington he was preparing his Tenderfoot tests he saw his first airplane. The Scout Movement then did not have its Aviation Merit Badge. At Cincinnati when he was shown the requirements for what might be called the Scout route to the air, he studied them very carefully and dictated the statement which is here reproduced.

Heroes come and heroes go, but there has only been one Lindbergh. His appeal to all classes and conditions of people was swift. The enthusiasm he created was intoxicating. Between him and the Scouts there was not only the intimacy of many boy adventures they had in common, but the belief in the air as the new element in our widening horizons. Who that has seen Lindbergh with a group of Boy Scouts can doubt that the strongest link of their understanding is the code they share—Scout honor, the implications of the Scout Oath and Law. The great adventure on which Lindbergh and his Boy Scouts friends are launched, and it is an indissolvable partnership,—the "WE" of life's adventure—is in *the spirit of Scouting.*

The Bonehead

By Mather Brooks

Illustrated by F. J. Rigney

THE Top Sergeant of the Fifteenth Squadron poked his head through the door of the Sanctum Sanctorum, a tiny room adjoining the squadron orderly room, which was glorified by the words "Commanding Officer" on the door, gave a brief glance at the single occupant of the room and jerked his head back like a startled turtle. The door closed with as little noise as a leaf falling on sod. The noncom turned to Private Wilson, who, hat in hand, was waiting to go out on pass.

"I wouldn't ask him for that pass right now if I were you," advised the Top. "The old man is terrible riled up over some telegram that came a few minutes ago."

And the "old man" was. Slumped before his desk, Captain Clark, the Commanding Officer of the Fifteenth Squadron, was reading a telegram over and over again—and becoming madder with each perusal.

The contents of the message were rather pithy:

"Broke four wing panels, empennage, propeller, under-carriage, and fuselage in landing at Iowa City. Gave right rudder to avoid excited cow. Sprague."

For the twentieth time the Captain ran an agitated hand through his grizzled hair, which, as the result of many previous rumplings in the last few minutes, stood stiffly erect, giving him an extremely belligerent appearance. He crumpled the offending message and flung it across the room. Then he picked it up, thrust it into his pocket, and, savagely kicking the door open, strode through the orderly room and into the spring sunlight. Private Wilson made as if to intercept him but the hand of the Top Sergeant thrust him back into his seat.

"Just postpone that pass for a while, sonny," advised Sergeant McClaren. "It'll keep. Right now that Captain is twenty thousand feet in the air and still going up. You will have a lot more chance of getting it signed to-morrow."

Arriving at the hangars of the squadron, the Captain ran a sober eye over the line of airplanes. There were three; all that remained of a splendid fleet of ten De Havilands that had been proudly assembled three short months before. Six were gone—wrecked; and of that six, Lieutenant Sprague had been responsible for the crashing of five.

"He is a bonehead," gritted the Captain through his teeth. "A common, ordinary bonehead."

The bonehead in question was, at this precise moment, standing in the center of the Air Mail Field at Iowa City surveying the remains of his latest escapade. It was hard to tell that the meaningless pile of wood, wire and metal on which he gazed had been a good airplane only three hours ago. The cause was carelessness. After a four-hour flight from Ranston Field, in Illinois, where the Fifteenth Squadron was

stationed, Sprague had sighted the mail field, and, being tired, decided to land in a hurry.

He had neglected the fact that, as the air mail planes arrived only in the morning and evening, a frugal manager had seen fit to lease the flying field to a nearby dairyman for grazing purposes for his cattle during the day. Instead of circling the field, as he had been instructed, and which would give the attendant time to drive the cattle into the corner, Sprague had swooped down and landed at once. About the time the wheels of his plane had touched the turf, a terrified cow projected herself violently across his bows. He had to turn quick. The under carriage crumpled with the unexpected strain and the machine nosed over with a crash.

Young, happy-go-lucky, and a good pilot was Sprague, but an unchecked streak of carelessness in his make-up went to impair his efficiency in a business where efficiency counts. As he contemplated the plane, he had a premonition that all was not right, or would not be when he returned to the airdrome.

And all was not right. He spent a busy fifteen minutes in the Commanding Officer's room, and the interview which took place helped him to change his estimate of himself radically. He left the office with Captain Clark's words dinning in his ears.

"You have been directly responsible for five wrecks in the past three months. Every one of them has been your own fault entirely. There have been no unavoidable nor excusable circumstances. You know better but since you have acted the part of a bonehead, I am compelled to class you as one. You will stay on the ground for the next three months and see if you can be of some little use. You certainly are none in the air. Good morning, Sprague," said the Captain by way of concluding the interview.

The news of the interview spread, as news does, and people began to hear less about Sprague and more about the "Bonehead." Sprague had no defense for the name and could only hope to live it down. In a short time, on informal occasions, of course, Sprague was addressed as the Bonehead nine out of ten times.

The Bonehead languished for two months after that stormy interview, groaning under his duties as squadron mess officer. He did not even enter the hangar where the planes were kept. Needless to say, he was exceedingly irked. His brother officers of the squadron were sorry for him, but felt that he was reaping his just deserts. Lieutenant McGinnis, the adjutant, most fittingly summed up the Bonehead's condition.

"He lacks one necessary pound of steam pressure," spoke McGinnis of the Bonehead. "If he had started to figure just a mite sooner on all of these wrecks he has had, they would have never occurred. No one can deny that Sprague is a good pilot—he has the best natural feel of a plane of any flyer I know. But he hates to figure ahead—trusts to luck—and a man cannot do that and fly—or any other business for that matter."

Midsummer came, bringing with it a large class of Reserve Officers for training, and, with a shortage of Regular Army Officers. The Bonehead, to his immense relief, was pressed into service. The squadron beamed, for the Bonehead appeared to have turned over a new leaf. He became the most conservative flyer of the outfit. Even Captain Clark went so far as to grudingly say, "Sprague has the goods when he cares to deliver them."

Then, one sunny afternoon, disaster overtook the Bonehead. He was skimming low over the hangar on his way to land when a Reserve Officer, feeling a trifle cocky, decided to take off directly from the line of airplanes in front of the buildings,

instead of taxiing out on the field for a distance of fifty yards before opening up, as is required by regulations.

Neither did he look to the rear before starting, thereby failing to see the Bonehead's plane, which slipped swiftly over the hangar about the time he opened the throttle wide and set loose the four hundred horsepower motor. Nor could the Bonehead, not possessing occult powers, see through the bottom of the cockpit and tell what was taking place directly beneath him; besides, his attention was focused far ahead and he was intent on landing.

When the Reserve Officer discovered the wheels of the Bonehead's plane hovering five feet above his head, preparatory to settling to the ground, he underwent a temporary panic. And the Bonehead, his attention called to what he was about to land on by his terrified passenger, jammed his throttle wide open.

But the motor failed to respond. He snapped the switches and skidded his plane sideways as it settled, fortunately missing the occupants of the plane on the ground but landing on its right wing. A cloud of dust enveloped the two airplanes. When it cleared, they were messed up indeed. Out of the mass of wreckage crawled the Bonehead. He extracted his mechanic, and next the Reserve Officer, who was carrying a sandbag in lieu of a passenger. Then the Bonehead threw his leather coat on the ground and proceeded to lick the Reserve Officer fully and completely, which, though pardonable, is not provided for by Army regulations.

Back to the mess hall went the Bonehead.

About this time, Corps Headquarters ceased their endless wrangle over paper work and complicated reports long enough to issue an order calling for a series of night maneuvers for the benefit of the Reserves. This unconsciously saved the Bonehead from much of his trouble, for he was one of the best night pilots in the length and breadth of the Air Service. With a sigh of relief, the Bonehead read the order calling for his active participation in the maneuvers and happily turned the squadron mess over to a successor.

His first mission was night bombardment. He was to leave the ground at midnight; fly south, and receive the instructions regarding his objective by radio.

The night set for the mission turned out to be as cloudy and as black as pitch. Five minutes before the zero hour found Sprague in the cockpit of the machine, just completing a satisfactory study of the radiolite faces of the instruments. The motor was ticking sweetly at idling speed, the mouths of the exhaust pipes resembling bluish torches. On the top of the hangar behind the plane was a single immense searchlight whose beam cut the darkness across the flying field like a glistening knife. The intensity of the powerful light threw into insignificance all of the other lights of the field.

The hands of the clock on the dash lacked one minute of midnight when the Bonehead signaled to the mechanics to move the blocks from the wheels and free the machine. He turned to the bomber, Lieutenant Wade, who stood upright in the rear cockpit.

"All set," he called.

The bomber's head, gnomelike with its mask of helmet and goggles, nodded.

With due regard for the rough spots of the field, for he had four fifty-pound bombs hooked under his wings, the Bonehead taxied out and headed into the wind. Then he wrinkled his forehead as he saw that it would be necessary to take off directly over a large mass of automobiles, on one side of the field, the parked cars of the spectators who had come many miles to witness a display of pyrotechnics which would

eclipse any of their local Fourth of July celebrations.

Sprague hated to take off directly over a crowd, for he well knew that the time when motor failure is most imminent is during the first minute after a high-powered motor has been opened up and is just dropping into its stride.

There was no alternative, however, so Sprague eased the throttle open and settled to the business of flying. Before the lever was all of the way forward, the plane was shooting through the dazzling glare of the searchlight to plunge into the contrasting, fathomless blackness beyond. Flying by his sensitive feel of the ship alone, the pilot eased the machine off the ground. With the exhaust manifolds belching their blue flames clear back to the tail on either side, the machine began to climb. One hundred, two hundred feet up it went. Then there was a break in the incandescent, comet trail of the exhaust. Next, a sullen grinding in the motor that terminated in silence, unbroken save for the singing of the bracing wires.

A terrified cow projected herself violently across his bows.

Dazed with surprise, Sprague automatically headed the plane down. He knew without investigating what had happened. A connecting rod had snapped, and the plane, laden with two hundred pounds of T. N. T., was directly over the mass of parked automobiles, and it had to land!

Thoughts piled themselves on each other in the Bonehead's mind. There was no steam lacking in his make-up at that particular moment. He knew what havoc those bombs would raise among the cars below. Moreover, if he glided over them and struck a ditch or obstacle in landing, he would be blown to atoms. It was imperative that he release his cargo of bombs, but where? Behind him was the searchlight, the only landmark he could see. Ahead was blackness. He did not have sufficient altitude to enable him to turn back toward the flying field.

But the thoughts at last arranged themselves in his mind and action followed. He suddenly tipped the switch releasing the parachute flares, one from each wing, magnesium torches that are dropped on silken parachutes to enable the night pilot to pick his landing field. On this occasion it was a lone chance, for the flares were designed to drop for at least two hundred feet before opening. Luck was with Sprague, for

one did open. It ignited just a few feet above the ground and Sprague's heart sank at the spectacle the light revealed. Below him were cars—cars—cars. Ahead was a railroad track with a single large brick warehouse beside it. Gliding at the slowest speed, the Bonehead headed the plane for the building, and on the way he prayed. If he had judged the angle of his glide correctly, he would just clear it.

"When I tell you to—drop those bombs!" he yelled to Wade.

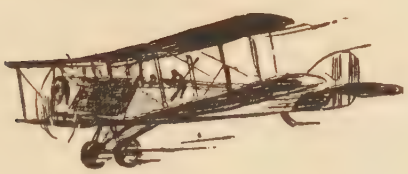
Safely past the cars, they neared the warehouse. The parachute flare went out, but Sprague caught a gleam of steel rails below in its dying flicker.

"Drop 'em—!" he more screamed than yelled. Then he knew it was time to level the plane for landing. There came a flash, a deafening crash, and the airplane leaped like a startled deer. With the machine totally out of control, the right wing struck the ground, the nose crashed—and blackness more intense than that of night surrounded the Bonehead.

When the Bonehead came to himself in the Post Hospital the first face that he recognized was that of Captain Clark. The Squadron commander was grinning.

"That was a brainy, nervy thing to do, Sprague," he said. "You landed on the other side of the warehouse all right and the building acted as a buffer, saving you from being blown to pieces. No one is hurt. A part of the railroad track has disappeared, but the bombs struck far enough from the parked automobiles to be harmless. I am mighty glad to see you coming around. Wade is all right. And—you are back on flying for good."

A short time later the Bonehead went to sleep again. This time he slept peacefully and with the manner of one whose steam pressure is right up to the mark.



One Good Turn Deserves Another

By Capt. A. P. Corcoran

"YOU really think I could trust them with the Sopwith?"

"You say yourself they can fly, and I'll vouch for their being reliable. In fact, my dear fellow, if by chance any of you had to land halfway, I'd be more anxious about you than them."

Captain Addinsel gave a little deprecatory cough to soften the lack of compliment in this remark, but Lieutenant Twyford only laughed.

"Don't apologize," he said. "I know when it comes to jungles, I'm only—what's that they call it?—a tenderfoot, while they——"

"Exactly. They're seasoned scouts."

"Well, I daresay they're safe enough. Suppose we break the news to them?"

"Righto." And Captain Addinsel forthwith sent a messenger to summon the two leaders of the Uganda Troop.

Once again fortune was favoring the scouts. As school was reopening in two weeks, their holiday at the coast was over. They had already reached Mombasa preparatory to taking the train for home. But now their sorrow at the prospect of leaving was being lessened by the promise of a new adventure on the way.

Just a week back there had arrived from England one Lieutenant Twyford, R.A.F., with a pilot, in charge of two flying machines. One was a Handley-Page limousine built to hold twelve at least; the other a Sopwith two-seater. Both were destined for government service at Nairobi and were due to arrive not later than a certain date. But no sooner had the men landed than the pilot fell ill. To pass the time, while waiting, Lieutenant Twyford taught the scouts the elements of flying.

"Plucky chaps," he had confided to Captain Addinsel after their first day. "And keen! They know how to fly already, that chap Marshall particularly."

"Yes, he's seen a little of it before."

"You know," went on the Lieutenant, "if it's agreeable all round, I'd be glad to run them up to Nairobi in the Handley-Page. Think they'd like it?"

"Rather!" Captain Addinsel's voice rang with conviction.

And so it was at first arranged. But the days passed, and the pilot grew worse. Soon it was a question of how the Sopwith was to reach Nairobi on the date it was due to arrive. It was their friend, the Captain, who had suggested trusting it to the scout leaders.

As they came now in response to his summons and he put the matter before them, their eyes shone.

"Gee! sir!" Bradley Marshall addressed the Lieutenant. "You're some sport to let us fly the thing."

"Oh! that's all right. Very glad to. Only remember you'll have to follow me, keep me in sight all the way. No roaming the air on your own."

"Sure." They both promised.

Therefore next morning at five o'clock they set out to the great field outside Mombasa. Early as it was a crowd had already gathered to wave farewell to the Uganda

Troop. There was Henri almost weeping, because he must be left behind; Captain Addinsel with a score of naval officers and seamen, besides a host of multi-colored natives to whom the boys had become familiar during their trip.

As they put on their helmets and buttoned close the collars of their leather coats, Lieutenant Twyford issued his last instructions.

"We'll fly side by side. Watch out for my signals. If there's to be a 'write-off' " —he used the word coined in the war to mean a crash—"I'd like to be in at the funeral. Of course there won't be, but remember no beetling home when you sight Nairobi. I'll land first and direct you. Now I'm going to fade out. When I'm away, you get up."

With a final smile and a hand wave he was off. They watched him and his load of hallooing scouts rise from the ground. Then in they hopped in their own cockpit, Marshall behind at the controls, Meade in front as observer. They taxied along the ground amid the cheers of the crowd, and having attained sufficient speed, Bradley pulled the joy stick. Slowly the airship began to rise from the earth, Meade unreeling the wireless aërial as they went.

"Go to the right and keep a distance of two hundred yards," signaled the Handley-Page, which was already some six thousand feet up.

The little Sopwith soared, and now the two boys could see their companions waving hands from the windows of the limousine.

Above them was blue sky; around them white clouds floated; below them lay the earth veiled in a pinkish, transparent mist. They could see the shadows of trees and men showing black on its surface. And through its heart cut the iron thread of the narrow-gauge Uganda railway.

"Great, isn't it?" Meade spoke through the local phone to Bradley Marshall.

The other answered with a delighted nod of the head.

For a while they sailed in silence through the sparkling air to the vibrating tick-tick of the machine. Below the contour of the country was slowly changing. Now they were nearing the precipitous passes of the Great Rift Valley, where the railroad itself rises to a height of some eight thousand feet above sea level. Gradually the air grew colder and became "bumpy." The airship seemed to be sailing through cross currents. The blue of the sky next turned to dull purple, and the sun, which had been striking sparks from the polished edge of the struts, vanished completely from view. The clouds below grew dun-colored and almost opaque. Through them the boys could catch only infrequent glimpses of the earth. And now they began to encounter light lumps of fog in which for some seconds they would lose sight of the Handley-Page.

"Go down to four thousand feet," came the order to them presently.

They descended, but conditions below were not more favorable. Here the lumps of fog had diffused into an enveloping mist which grew denser and more blinding every minute.

"Pretty thick stuff ahead," Meade spoke to Marshall through the phone.

"Yeh. Regular potato soup," Bradley answered, as he poked the Sopwith's nose into a thick rainy cloud.

Soon they were right in the center of it, and now indeed they felt completely cut off from the heavens and earth too. They lost all sense of horizon. They could get no glimpse of sun or soil. All that met Bradley's view was a vague outline of Meade's head and the two rear struts of the center section. A great white blanket utterly enveloped them, and through it they sailed for some twenty minutes lost to all the universe but each other.

At the end of that time the fog grew gradually thin. Now they could glimpse through it vague flashes of earth and sky. At the end of a half hour they were out of it, and the air was clear and sparkling as in the morning

They looked about. Blue sky above; flat brown earth below, and around them floating flecks of white cloud. But their companion, the Handley-Page! Where was she?

"Great Jerusalem!" ejaculated Meade. "We've lost the others."

Peer around as they would, they could get no sign or sight of the limousine.

"I'll try the wireless," Jim told Bradley through the phone.

He worked at the key; stopped to listen; worked again, and paused. No answer came to him through the air.

"This is a fine mess," Marshall addressed him. "Got any idea where we are?"

"Not a glimmer," Meade replied. "Didn't you keep on the course Lieutenant Twyford told you—dead West?"

"Sure I did, until we hit that fog, and then the compass began to do a shimmy—went spinning and shivering around."

"Great scott! Then we'd better dive down to two thousand feet and try to find something that looks familiar."

They swooped down. Great plains stretched around them, rolling grasslands of a hundred varying shades of green, edged with purple hills on the horizon. As they came lower, they could distinguish roaming companies of giraffes and hartebeests and zebras blackening the earth with their shifting shadows. As Bradley steered close to the ground, Meade seized a telescope, and began to scan its surface.

"A caravan," he called presently. "They could probably direct us."

As they swooped still lower, he kept on looking at this sign of human help at hand. Then suddenly he gave a shout, half of dismay.

"Look, Brad. Look." Through the telephone he directed the other's gaze, never shifting his own eyes from the spot.

Below was a small wagon drawn by two oxen in front of which stood a white man in missionary dress. Behind him two black boys were huddled in terror, and before him were four huge, dark brown leopards, toward which he was waving a long cow whip. The animals were no more than fifty yards from the caravan, and here they paced to and fro, lashing themselves into fury, and working up their courage to attack. Whenever one stopped in his stride and ventured a step nearer, the white man would flick him with his whip. It was seemingly his only weapon, but it served the double and opposed purpose of holding them off for a time and also rousing them to greater anger. It was only a question of moments when their rage would conquer their fear, and then a question of seconds until the man and boys would be torn and killed.

"What can we do?" Meade called through the telephone.

"I'll fix them," cried Marshall in reply.

Turning the nose of his machine toward the leopards, he shot earthward at full throttle. So absorbed were they in their prey they failed to notice him. Fifty feet from the ground he shut off his engine, and then as the undercarriage touched its surface just twenty yards from the beasts, he gave it full gas again. It tore across the grass. Its speed now was some one hundred and five miles an hour, and it was heading straight for the four animals.

Hearing the noise now, they stopped in their walk and switched around. For the space of a second they eyed this strange object racing toward them. Then abruptly all four turned tail. They ran across the plain in great flying leaps. Too late!

Their speed was as nothing to the Sopwith's.

The propeller caught one on the head, almost splitting it in two and killing the leopard outright. The wing hit another, hurling it into the air. Over and over it tumbled, reaching a distance of some fifty yards. The two others, terrified, tore toward a thicket. Shutting off his engine, Bradley taxied along the ground, giving chase. But, screaming desperately, they escaped into the dense brush.

"Guess they won't stop running before night," said Bradley, complacently, as he headed the machine back to the caravan.

"Close call, sir," he shouted, as they approached the missionary. And then, as he could see the man's face: "Hallo! If it isn't our old friend, Mr. Pearson, who saved us from the head-hunters."

By this time he had brought the Sopwith to a standstill and he and Meade hopped out on the ground. The missionary advanced to meet them, but they could see that he did not know who they were.

"Can't recognize us in our helmets, sir," Bradley spoke again. "But perhaps you remember saving some scouts just in the nick of time."

"By Jove! You're two of the Uganda Troop." He shook hands with them heartily. Meantime the little boys, losing fear in curiosity at the queerly-clad creatures before them, crept out to get a better view. Mr. Pearson patted their curly heads. "You've certainly snatched us three from the jaws of death," he told them.

"Well, one good turn deserves another," replied Jim laughing.

They chatted awhile, and he related how he had come in his present predicament. The head of an inland mission had died, and his own being in working order, he had been invited to come and take charge. He had been traveling slowly across country, spending nights at various outposts. At the last he had acquired two Kikuyu porters who deserted him, taking his guns.

"I wondered why you hadn't shot the leopards," said Bradley. "Where are you heading now, sir?"

"Toward Nairobi."

"Well, here's luck. So were we, until we lost our bearings in a fog."

"You did not go far wrong," said Mr. Pearson consolingly. "Nairobi is not more than two hours' march behind those hills. You'll make it in about fifteen minutes,"

They were loath, however to leave him alone again in the wilderness. But he reassured them.

"The sun's high now and getting higher every minute. Not much chance of attack again from any animal, while we're on the move. They don't hunt food in the heat of the day."

Once again the Sopwith soared into the clear air and high over the blue hills. And as he had stated, in fifteen minutes they sighted the central street with its double row of eucalyptus trees on either side.

"Here we are," called Meade.

"Keep your eyes peeled for a landing place," came Bradley's answer.

They caught sight of it soon, distinguishable easily in the clear light with its large Handley-Page parked in the open and surrounded by a gaping crowd. And now they could perceive hands waving toward them. They swooped, and were soon in the midst of the scouts, among them Lieutenant Twyford, pale of face.

"I was just going out to look for you," he informed them. "What happened?"

When they told him, he squirmed.

"Leopards! My word! Glad I didn't meet them." He shook an admiring head at the two. "Captain Addinsel was right after all." He paused again. "For this," he said, "I'll see if I can't get the Governor to let me take you back to Masindi in the Handley-Page. You deserve it."

I Take My First Parachute Jump

By Irving Crump

As told to him by Lieutenant Herbert Cramer

I HAVE been asked time and again by members of my family, reporters and aëronautical enthusiasts "how I felt" when I undertook my first aërial stunts such as loop, spins, barrel rolls and wingover turns, but I can't tell them. The sensations of my "first" in anything quickly became merged with the sensations of scores of other aërial adventures and I simply cannot untangle them and analyze them.

Although I have been flying for seven years, it was not until this past summer that I was given permission to make my first jump. Most of my military service was spent at McCook Field in Dayton, which is the experimental aviation field for the Army, and where Lieutenant MacReady made the altitude record, and Lieutenant Jack Harding, of X'round the world fame, was my buddy. At McCook Field during 1919 and 1920, it seemed to be particularly hard for a pilot to get permission to make a parachute jump, chiefly because a request had to be navigated through so many and devious military channels. Permission was only granted after the request had received the O.K. of Squadron Commander, Post Commander, Corps Area Commander and the Chief of the Air Service, and since requests from ambitious jumpers were never of any great importance, they all too often became pigeonholed along the line, at least mine did and so did the request of most of the men I trained with.

As a member of the R.O.T.C. at Mitchel Field this past summer I again made application to be allowed to make a "live jump" and to my amazement the request was immediately granted.

It might be well for me to explain here what is meant by a "live jump," and to differentiate between a jump from a moving airplane, and the spectacular old carnival stunt of a "jump" that is really a drop from a Montgolfier balloon. Not to depreciate the courage and hardihood of the pioneers in parachute work I want to say that there is a vast difference between leaving an airplane with a parachute and dropping from a balloon. For one thing, the airplane is usually moving through the air at a headlong speed of at least one hundred miles an hour, while a balloon scarcely attains a quarter that momentum. There are stabilizers and rudders all to be cleared from an airplane, any one of which might easily cut a man in half were they to strike him traveling through the air at the rate of speed they do. The man who drops from the Montgolfier has his parachute ready to open instantly. The aërial jumper's parachute is packed in a neat pack 18 by 32 inches long. He depends upon a tiny pilot 'chute to open the larger one, and although most times they work perfectly, yet in my flying experience I have seen two that refused to work, one failing utterly and allowing a student to drop three thousand feet to his death.

There are two forms of "jumps" from a moving airplane. Differing from the

"live jump" is the "drag off" in which the jumper climbs out upon the upper surface of the wing, pulls the rip cord of his 'chute and lets it stream out into the air until it opens and drags him clear of the wing and into the air. This type of jump can only be safely made from an airplane such as the Martin Bomber on which the wing span is greater and the wing tips extend so far out there is no danger of the student jumper becoming entangled with the tail or stabilizer.

But from the smaller type of planes, anything below the bomber type, the jump is usually made over the side of the fuselage from the cockpit, the jumper literally throwing himself clear of the plane in a "live jump." Such was the form of jump I proposed making for my first attempt. I would have been just as well pleased to have tried a "drag off" for my first experience, but there were no planes of the larger type at Mitchel Field, and when my orders came through they specified a "live jump, take-off to be made at 10:30 o'clock Wednesday."

I'll admit a sinking feeling in the pit of my stomach as I read the order and stopped to think what I had let myself in for. I realized it was only my craving for additional adventure in the air that had prompted me to apply for permission to jump, and it would have been far safer for me to have continued with the daily routine of flying. As it happened I was the only member of the camp to make application to make a parachute jump up to that time, although three days later a major made the jump and only escaped being killed by the narrowest margin.

At quarter past ten on Wednesday morning Sergeant Pearson, who was in charge of the Parachute Department, informed me that it was time to put on my 'chutes, and with his help I strapped myself into the webbing harness.

For those who do not know the equipment of a jumper I might explain that there are two 'chutes attached to the webbed harness that is strapped about the body; the main parachute, which has a twenty-eight foot spread, and an auxiliary, or emergency 'chute which has a twenty-two foot spread. Both are made of the lightest but most substantial kind of pongee or habutai silk, the larger one being strapped to the jumper's back, and the smaller one being strapped to his chest. Each has attached a pull ring and rip cord which, upon being pulled, unlaces the pack containing the silken 'chute and throws it to the wind by means of the pilot 'chute with a spring arrangement. The pull ring for the main parachute is partly encased in a pocket of the webbing on the jumper's chest and the rip cord extends over his left shoulder to the lacing of the pack. The ring to the smaller 'chute is also partly encased in a pocket on the right hand side of the pack on the jumper's chest.

As I examined the pull ring of the main 'chute and the way it was tucked into the pocket of the webbing it did not look half large enough or anywhere near accessible enough to be seized and pulled while I was tumbling crab-wise through the air three thousand feet above the ground. I asked the sergeant if there was any reason why I should not take the ring from the pocket and let it dangle on my chest.

He grinned.

"Don't you worry, Lieutenant," he told me, "your hand will find that ring and never be conscious of the moment you pulled the rip cord. You couldn't keep your hand away from it if you tried." And he was right. I do not recall the moment my fingers found that ring and yanked the rip cord free. In fact it was

not until I reached the ground that I realized that I had not held onto the ring, but had thrown it away, thereby losing seventy-five cents' worth of equipment that belonged to Uncle Sam.

I was ready and waiting at ten-thirty, but unfortunately Lieutenant Wilson who was to take me up had become involved in a conference and there was considerable delay; a great deal more than I wanted. I began to get uneasy and wondered whether perhaps I would slide off into a funk, especially when I began thinking of two accidents I had seen out at McCook Field; one in which a Lieutenant R. A. Caldwell, R. F. C., became entangled with the controls of the plane he was jumping from and was killed, and another when a demonstrator for some parachute company, a young Englishman, attempted a jump with a 'chute that refused to open. I recalled seeing him fall; how he twisted and turned and struggled with the refractory parachute, and how finally he landed with a terrible sickening sound that could be heard for a quarter of a mile. I saw all too vividly again the way his twisted form rebounded from the earth twelve feet in the air to fall again a hideous, well-nigh unrecognizable thing. By sheer will power I drove those thoughts from my mind. I'd go through with it. I had to go through with it now I had gone this far. There were fifty or more fellow officers gathered to watch me take off. I couldn't quit now.

Ten-thirty dragged on to eleven; eleven-fifteen; eleven-thirty. I got hold of the sergeant again and asked him to telephone to Wilson or get some other pilot to make the mission. Fifteen minutes later he appeared with another pilot, Lieutenant Frict, a very capable and experienced aviator, but a pilot who had never before taken up a jumper.

We were photographed, then I climbed in the rear cockpit of the glistening white machine. The motor started with a roar and presently we were circling the field and climbing higher and higher. We reached two thousand feet. Never in all my flying experience had I stopped to consider just how high two thousand feet really is. I looked down onto the field and saw a group of tiny pinpoints of white; the faces of my friends upturned, watching me. I saw the hospital. I saw the ambulance. My, but they were a long way down.

We climbed higher:. two thousand five hundred feet; three thousand. Lieutenant Frict had told me on the ground that I should watch his head and when he slowed down the motor and nodded I should begin to climb out of the cockpit and cling to the side of the fuselage. He eased off on the motor a little above three thousand feet and nodded his head (talking or even shouting to each other is impossible because of the roar of the motor). There was something ominous, it seemed to me in the way he did it, without looking back.

That was my cue. The rest was up to me—and the parachute. Would the thing open, or would it fail me? Would I go sailing lightly downward, or would I plunge like a plummet and—suffer the fate of the Englishman out at McCook Field? Those were the thoughts that leaped first to my mind. But they gave way instantly to others. I looked for the pull ring at my chest and slipped it out of the pocket in the webbing to let it dangle on my chest. As it happened that was a very stupid thing for me to do.

I began to climb over the edge of the cockpit then. The machine is equipped with a step toward the bottom of the fuselage and the Sergeant had instructed me to ease myself over the edge of the cockpit until my left foot was on the step,

then to reach forward and grasp the edge of the pilot's cockpit with my left hand and cling to the edge of my own cockpit with my right hand and my right leg hooked over the edge and bent at the knee.

Once again I looked for the ring to the parachute. Out of its pocket that wind had whipped it so that it had become entangled in the webbed harness I wore. How would my fumbling fingers ever find it once I had thrown myself clear of the ship? I risked being torn from the side of the ship by the wind and disentangled it with my right hand. Then I paused a moment and recalled the instructions of the Sergeant.

"Throw yourself as far out from the ship as you possibly can, so that you will escape the control wires and stabilizers," he had told me.

That immediately became my biggest fear; that I might not fall clear of the tail. Those ailerons hissing past at a hundred miles an hour would slice me in two as neatly as a knife might slice through cheese. Above all things I must throw myself clear. I glanced upward into the face of Lieutenant Frict, moved my dry lips in a wordless farewell and forced a smile—a rather sickly one I am afraid. I slipped my right leg over the edge of the cockpit, balanced there a moment, then with all my might I shoved myself away from the sides of the ship. The next instant I found myself sliding across the air like a bird, lying face downward with hands and feet extended.

For the space of several seconds it seemed as if I was simply floating there in mid-air. The hundred-mile-an-hour impetus the ship had given me shot me forward with it, instead of downward and I found myself traveling along directly under the wing of the plane and about thirty feet below it for what seemed an extremely long time. It was not an unpleasant sensation. I had been prepared for a breathless descent but instead I was cutting the air like a projectile.

But my forward plunge stopped suddenly and an instant later I began to fall. Before my body twisted in the air I was looking downward onto the field. Even in that brief interval, I saw again the upturned faces of my friends, the flat red roof of the hospital, and the ambulance, in motion now, rushing down the field to get under me. That ambulance—would it pick me up alive or dead? Then my head dropped forward ever so slightly, and my body instantly followed it and I began turning a series of violent somersaults. I was falling then. There was no longer any doubt about that. Each time I turned over so that I faced the earth I could see the ground rushing up toward me at a hideous, terrifying speed. I found myself speculating in sheer panic how many seconds it would take to drop that whole distance. Would I have time to reach that pull ring and yank the rip cord free? And if I did would the parachute have time to open and check my descent? 3,000 feet wasn't such a great height after all. I found myself regretting that I had not gone higher—5,000 feet perhaps. It would give the parachute greater time to spread out its silken folds.

It must have been then that I groped frantically, madly for the ring, found it and yanked it free, perhaps throwing it off into the air with the force of the pull. I can't remember. All that I recall is that as I twisted and turned over in the air with my arms and long legs flying wildly, I caught a glimpse of the airplane humming overhead. I was amazed to discover that I had already dropped several hundred feet, and yet the parachute had not opened! Great heavens, had the thing failed? Was it defective? Was I going to continued on downward until I struck

the earth with crushing force, to rebound into the air again a twisted and horribly distorted thing as the Englishman had been? There was the emergency parachute! My mind leaped eagerly to that. Perhaps my hand leaped for the ring too. I do not know, but at that instant came a whistling shriek, and snapping flutter overhead as of flapping 'chute unfilled by a breeze then—*W-h-a-m.*

With the booming report of a thirty-seven millimeter gun the 'chute opened and my descent was checked with such startling suddenness that the webbed harness yanked my left arm above my head and I thought my shoulder had been dislocated. The next instant I found myself sitting comfortably in a sling, swaying from side to side as the big silken envelope oscillated softly and the shrouds above my head whistled a pleasant, cheerful song. The parachute had worked. There was I sailing serenely, safe and unharmed more than 2,500 feet above the flying field while the ambulance just below me followed my uncertain course.

I looked up at that wonderful envelope of silk; that magnificent big canopy bulging taut as a drumhead with the air beneath it and if ever I felt grateful toward any one or anything I felt truly grateful to that inanimate contrivance of silk and cord that had checked my downward plunge. With the sun shining through it, it looked doubly beautiful to me.

For perhaps a thousand feet I sat comfortably in the sling and enjoyed the sensation of floating pleasantly through space as I gradually dropped toward the earth.

Then it occurred to me that I might make a few experiments while I had the opportunity. I had heard old balloon men and the younger generation of jumpers tell of being able to direct the course of a parachute to a certain degree by pulling the silken envelope out of shape by means of the shrouds and thus causing it to sideslip very much as a plane will sideslip at certain angles. I tried too. By pulling down the shrouds first on one side and then on the other I found that I could make it fall faster or sideslip in almost any direction I desired.

But before I had finished experimenting I realized that I was within fifty feet of the ground and it was time I prepared to make a landing. It is not the easiest thing in the world to land with a parachute and a great many serious injuries have been sustained because the jumper has become very careless on approaching the ground. No matter how slowly the 'chute falls, still the jumper's body comes in contact with the earth with jolting force. To counteract this it is customary to reach upward and hook one's hands into the D rings that hold the shrouds on either side of the meshed sling in which one sits. By lifting upward the parachute man can relax his body and at the moment of coming in contact with the earth take up the force of the impact so that he is not injured. I followed the prescribed method and when my feet came in contact with the earth I took up the strain of the fall and skidded along in the dust for probably a dozen feet until the weight of the parachute pulling out ahead of me yanked me over onto my back. It dragged me perhaps ten feet further before the 'chute men tumbled out of the ambulance that had come rumbling up and, pouncing upon the silken envelope, crushed all the air out of its folds.

Friends gathered around me, lifted me, unstrapped the webbed harness, shook hands with me and waxed enthusiastic over the stunt. Was I glad to get back to earth? Nobody was ever more glad, or more grateful, not even Noah after he got back to old *terra firma* after the flood.

All that I can recall is that I twisted and turned over in the air, with my arms and legs flying wildly.

It was Erik. He started forward, hesitated, stopped.

The Polar Flight of ZR-10

By Arthur B. Reeve

Illustrated by Harold Anderson

"YO!"

It was the great, full-throated voice of many men that sounded on the gentle air of the June dawn, sounded like one man, this call of the ground crew, two hundred and fifty of them, as their practiced hands guided the warping of the great ZR-10 out of her hangar at Fieldhurst.

"People don't realize, Craig," I remarked as I contemplated the flight, "that if a straight line is drawn on the globe from Nome, or from Point Barrow, across the Pole, it will strike about Spitzbergen. Over the Pole is the shortest distance between London and Tokyo, five thousand miles against ten thousand, just half the distance the other way."

Kennedy nodded absently. "The thing I can't forget, Walter, is that the line passes through the heart of the blind spot of the earth—the unexplored Arctic, nearer Alaska than the Pole."

"Yo-o-o!"

The great silvered gas bag, or rather series of gas bags, was slowly beginning to poke her inquisitive nose further out of the gigantic doors.

Kennedy, formerly of the Office of Naval Intelligence, the famous O. N. I., had been requested to go along on the polar flight in the new ZR-10 to protect it against threatened sabotage from some traitor, some one believed to be in the pay of a rival foreign government. Perhaps this government feared it might lose something it hadn't yet got in the northland. Anyhow, it was on a warning that much was at stake in the flight.

I was along as an observer for a proposed semi-official Transpolar Air Service Company, Alaska to Norway and other countries. Our idea was to hop, say, from London to the southwest corner of Norway, along the coast to North Cape, then to Spitzbergen or Nova Zembla. On the other side of the Pole, the service was to go two ways, one down the American side of the Pacific to Vancouver and Seattle, the other down the Asiatic side, with a short water jump to Japan.

Kennedy nodded again. "Yes. Look at a map with the Pole as its center and the equator as its circumference. The Arctic Ocean is one of the smallest. The Arctic, between North America and Asia, is like the Mediterranean between Europe and Africa."

Though he did not seem to be doing anything much, Kennedy was watching acutely every one we knew who was going on the voyage.

This crew was a happy bunch, carefree. For facing the perils, did they not get plus fifty per cent of their pay for air service?

Suddenly I heard the familiar voice, of a boy, and the thick guttural of a man, destined to become to me quite as familiar. It was Ken Adams, Craig's fourteen-year-old nephew.

"How did Ken get in?" I asked.

Kennedy shrugged. "How could you keep that boy *out?*"

You could tell Ken was up to no mischief. Ken's was the intelligent interest, the abounding curiosity, the love of romantic adventure, the wild desire to explore parts unknown that has carried grown men over all the earth through the ages. He had been thrilled by this last lofty endeavor, this flight through the wild rushes of icy winds to the North Pole.

Over by the high fence that enclosed the field I had seen him many afternoons, sauntering up and down by the big gates, keen for a glimpse of the active preparations within whenever the gates were opened.

Men old in the service, trained and tried, had had a smile for the eager-eyed boy. They understood. Ken was dreaming dreams as they had done when they were boys.

Ken would salute respectfully as they entered. Some of the men used to stop to speak to him, too. One by one he got acquainted with them all.

Now I recognized the other voice. One of the crew of the ZR-10 had made fast strides in Ken's friendship. It was Erik Haakon, a Norwegian, roughened by life from his earliest years on the sea. Erik was rough in externals only. In character I believed him as pure as the ice of his own northland. His views on things were as refreshing as the salt breezes he had known most of his life.

"Ken, you boy, you—what now?"

"I just came to say good-by, Erik, not yet but before you get off. Are you going inside? Oh, let me go with you. I'll not touch anything. Just let me look."

Erik had been sent on some commission and had executed it. Now he had just a moment for his young friend in this field crowded by every one who could get a permit to be present to say good-by and witness the start of the ZR-10.

Erik answered with a rough, kindly laugh as he tapped Ken good-naturedly on the shoulder. "A bird, boy—ain't she—a bird going north with the rest of them in the spring!"

Erik looked affectionately at the big airship as foot after foot of it came nosing out of the hangar. Ken seemed impatient not to miss anything. He did not even see us, so near.

"Oh, Erik, I'd love to be going. I'm crazy about it!"

There was a glint of humor in the eyes of Erik, "Whyn't ye write and ask 'em?"

"I did." Ken was reaching into his pocket for a much read and rumpled letter. "Here's what I wrote."

Erik read it aloud to himself:

Fieldhurst, N. J., April 1.
Commander Hugh Scott,

Fieldhurst Station, N. J.

DEAR SIR:

I have been reading about the trip to the North Pole of the ZR-10 and the continent of lost Vikings that they expect to find somewhere in the unknown Arctic area. I would like to go on the trip with you. Can you take me? I am fourteen years old and in the Junior High School at Fieldhurst. I can get the consent of my parents whom you know.

Yours truly
CRAIG KENNEDY ADAMS

Ken handed him the answer, read and reread:

THE ARMY AND NAVY CLUB
New York City

Mr. Craig Kennedy Adams,
Fieldhurst, N. J., April 2.

DEAR SIR:

I have taken pleasure in adding your name and application to join the Naval Polar Expedition to the official list of candidates. As this list already contains several thousand names, it will be some time before the committee can make a decision.

Very truly yours,
HUGH SCOTT, *Commander, U. S. N.*

"Yah?" queried Erik, handing back the letters.

Ken looked at him wistfully. Erik was blond, big-boned, with a certain amount of stolid dignity about him.

"And they didn't have room for me," replied Ken, dejected, adding, a moment later, "Erik, you must feel like the Vikings themselves when they sailed the unknown seas and settled Greenland, discovered America, over a thousand years ago. Think what this airship might do! Suppose you should find some of your own people!"

"E-yah!"

Then I recalled scraps of conversations Ken had retailed, how Erik had told him of the old homeland he had loved and had repeated the legends of the brave and powerful Vikings until they had enthralled the boy. I knew what was in Ken's mind.

"Mr. Jameson," he had asked me only a couple of nights before, after dinner, "did you ever hear of the 'Lost Vikings'?"

"I've read some of the sagas," I had replied, "the legends. There's an old story, also, that's a sort of classic, one of the seven original plots, I guess, the story of the 'frozen pirate,' in the ice, who came to life. A magician you admire made it into a picture, once. What do you mean by the 'Lost Vikings'?"

"Well, that's what they call them. Only Erik says they didn't get lost. We lost them. You know about Erik the Red?"

"I've read about him," I admitted, without further admitting that I had read it up for the purpose of my Transpolar mission. "Discovered Greenland in 985, then his son, Lief Erikson, came to the United States about 1002. As I recall it, Erik came back with tales of grassy fjords, sunshiny days, plenty of fish and game up there. Then his son found our country and named it Vineland."

Ken nodded. "Well, it wasn't long before those Vikings up in Greenland had a prosperous colony and made what were fortunes to them in ivory and oil. Now, Haakon says, the account of the last ship from the colony to Norway told of its rich cargo. That was in 1410. But after that the plague broke out and wars swept Europe. Greenland was forgotten and the way to get there. It was the Dark Ages in Europe. Finally there were some Norsemen under Hans Egede who established the modern settlement there in 1721. The Vikings of three hundred years before had appeared. There were over ten thousand of them in 1410 and in 1721 not a Viking remained. They found the stone ruins of their houses. They're there yet."

"All dead; no children," I agreed.

"No!" asserted Ken vehemently.

"Then where did they go?"

"That's the Viking mystery. Nobody knows."

"Maybe they went to sea and were lost."

"They couldn't. They didn't have any ships."

"Maybe they built some."

"There weren't any trees."

"Then," I strove desperately, amazed

at Ken's information, "maybe the Eskimos killed them."

"No, no, Mr. Jameson," he replied impatiently. "The Eskimos are a gentle people. They wouldn't kill anybody. But, listen. They told a tale of white men going north, suddenly, to a land the Eskimos were afraid to go to. They feared evil spirits. They said the land was warm, that hunters found the fat caribou and musk ox. It was green all the year round. They even tried to tell of the route the white men took, in the direction of what the explorers now call the coastal trail route, north. Erik told me all about it. Think of maybe finding the descendants of these people, Mr. Jameson, to be the first from the outside world to reach them!"

I remembered how Ken had looked off into the night sky, the light of inspiration, of resolve in his big blue eyes. I remembered it and thought what a man among men that boy would be.

Jones, another member of the crew, passed and nodded to Ken. Jones, among other things, had charge of parachutes. Then passed Tighe, the grim joker of the outfit, and Rothen.

They paused a moment. "Turned down, eh?—along with about fifty thousand others," remarked Rothen, unfeelingly. "Hard luck!"

"Well!" exclaimed Tighe. "We're carrying a bag of letters to Santa Claus at the Pole—at a dollar a letter! You don't suppose we're going to carry all the kids up to see him, too, do you?"

Ken was abashed, but said nothing. Erik was not for spending his leisure minutes in footless good-bys. He started toward the interior of the hangar for his next orders. Something had stopped temporarily the nosing out of the big ZR-10.

"Now, Erik, may I go in, with you? I won't meddle. I'll keep out of the way."

Erik looked around, sharply, put his hand on the boy's shoulder, leaned over, talking earnestly to him, as if that very intimacy might be his password to this aërial body of holies.

ZR-10 continued now slowly to nose out of her kennel.

At last ZR-10, "Star of the Skies," was all out of the hangar, tugging at guy ropes while the ground crew ran about executing frantic orders to those holding her down. There was the hurry and bustle and excitement of final good-bys. Rope ladders dangled down from the cages. Men like monkeys were running along the crazily swaying footway from nose to rudder. Way up at the nose was one man. Another suddenly seemed to appear from nowhere at the stern. Everything was ready for an early, sunrise start. She had not even been moored to the mooring mast.

"All ready!"

We looked for Ken. In the crowd surging forward, even in spite of the guards of the ground crew, we could not find him when we wanted him. The call was repeated. We had to miss saying, good-by to Ken, although I knew that had been his excuse for getting in there. We could not wait to find him.

Off at last!

We saw the cheering, shouting crowd grow smaller, fade into pygmies, then into the green of the earth, finally disappear utterly in the haze and distance.

Most striking to me was the feeling of stability and of the perfect control of the vast ship, thirty-seven tons, in spite of the light materials that entered into her construction. We were quickly getting accustomed to life in the air.

A faint haze softened the outlines of the city below as we approached New York.

To those in the city the distant drone of the ZR-10 motors must have given the call. Then above the Statue of Liberty

they must have seen from downtown what looked through the haze for all the world like a gigantic silver cigar which grew in size until the great ship was revealed in its whole seven hundred feet, longer by some twenty feet than the ZR-1.

We made the turn around the Statue of Liberty, the six motors throttled down to less than half speed, an American flag snapping proudly at the stern. Then we swept off majestically across the State of New Jersey, our silver-tinted dirigible in the sunlight an object of beauty.

It was getting along after noon. In spite of cramped quarters we managed to have a ravenous appetite. We found that they were cooking over the exhaust of the engines. The chow was soup and bread, canned meats, hot coffee, and fruit. A strange thing to me was that there was running water all over, piped from supply tanks.

As I talked with the men, I speculated on their motives. The commander was eager for the prestige a successful flight would bring to the Navy. Some saw fortunes, rewards from lecture tours, or perhaps knowledge for investments. Kennedy was silently studying the men on the expedition, making friends with everybody, and all seemed to like him.

On we went, easily sailing. I gave myself up to the exhilaration of it.

Suddenly we were startled. Was that a boy's shrill cry of pain above the drone of the engines?

"Hey, stop that! Please! You don't have to try and kill a fellow! Say! I found the leak! Please!"

It was Ken's voice. Ken had been discovered—a stowaway!

"I'll throw you over—you little spy!"

It was Rothen's voice. Tighe had seen Ken first, way up in the passages within the outer skin of duralumin that covered the interior gas bags. Rothen had Ken by the collar and was shaking him violently.

Down the footway Commander Scott reached them. "What's this, Ken Adams? Why have you done this thing? I'll have to stop at the next station and leave you!"

Sternly the commander spoke, and Ken flushed. He pulled himself up, with a sidelong glance of fresh terror at Rothen and Tighe. Then he faced the Commander and his shaking hand went up in salute.

Kennedy and I were silent. I could see that Craig was vexed at his young nephew, but thoroughly angry at Rothen.

"I didn't dare to show myself until it would have been too late to put me off," cried Ken. "But I had to tell about that leak." He leaned forward in his eagerness. Was that a tiny spark of humor in the steel eyes of Commander Scott?

Anderson spoke up. "The leak indicator shows a leak. We've been searching for it. We can't afford to lose helium gas at this rate."

"Show him where," nodded the Commander.

Ken saluted and disappeared with Anderson.

"Ken has done wrong, Commander," put in Craig. "May I radio his mother?"

"In a moment," he nodded back.

There was a buzz above the deafening drone of the engines. Then some of the men gathered as Anderson and Ken came back.

"It's mighty fortunate the boy was there hiding and used his head, Commander," reported Anderson. "It was worse than I thought. We might have been delayed some time, sir. I patched it. On the first leg we can make the repairs permanent."

Ken came shamefacedly over to his uncle. "Well, anyhow, you and the others can go on! The leak's patched."

"Ken Adams, we stop at Dayton. I'll radio your folks." It was Commander

Scott who spoke somewhat sternly.

Pale now, but self-possessed, Ken straightened and saluted. He would take his orders like a good scout.

"Sir." It was Anderson. "The men back here——"

The Commander looked at Anderson quietly, raised his hand for silence. He turned from the men to the boy. "Put him off? Not on your life! He came out of hiding voluntarily to tell us of a hole in the gas bag, helium escaping. No, sir, he is our mascot. I will ask Professor Kennedy to radio to your folks that you are safe, Ken, with us—and going on!"

Ken's face broke into a smile. There was something like a cheer from the men.

It was then that I caught a surreptitious wink of Haakon's blue eye in the covert direction of Ken.

"Wonderful, isn't it, Uncle Craig?" remarked Ken enthusiastically, later. "Not like traveling on a train or in a car. No bumps or shocks."

Somewhat more than three days were consumed in crossing the United States.

Greeted by wild enthusiasm we flew up the west coast from California to Seattle, then up into the panhandle of Alaska, Sitka, Juneau, Mt. Wrangel, Mt. St. Elias, twenty miles wide of ice, huge walls of sapphire, now melting and falling into the sea with a noise of thunder, across the Alaska Mountains below us like a relief map, the Yukon River, with fields of brilliant red and yellow flowers in the valleys, until at last we were sailing over the Seward Peninsula, with its hemlock and spruce and large cottonwoods, to Nome.

At Nome, as at other places behind us, was a cast, a 170-foot mooring mast, as at Fieldhurst.

Now we waited until the changes were completed to extend the cruising radius of our "Star of the Skies" to double what it had been when she was built. Also the last finishing touches were to be put on the radio station, JAZ, and mooring mast at Point Barrow, which had been delayed by the weather up there.

Nome at least had what passed for hotels. There were stores and banks and this summer there were more than ten thousand people there. Here also were organized the dirigible unit and the airplane unit, with planes that could land on water, ice, or land, in case of emergency relief necessary to reach us. The ZR-10 had an ordinary cruising radius of three to four thousand miles. Changes had increased that to nearly double.

What interested Ken was the sunshine all day and half or all the night in the Arctic, with the vegetation growing fast.

"Down in New Jersey," explained Anderson, "in daylight the gas in ZR-10 is heated. The ship rises. Therefore gas must be released to make it heavier, bring it down a bit. But then the precious gas is gone. At night when it gets cooler, the remaining gas contracts. Ballast must be thrown out to lighten the ship then, so it will rise. Up in the Arctic we'll be better off with our twenty-four-hour day, perpetual day. There is less contraction and expansion. It is ideal for flying."

It was here while we were waiting at Nome that Rothen and Tighe started playing practical jokes on Ken. I did not like either Tighe or Rothen and was determined to watch them.

Then, too, there were the dark Eskimos, shorter than the Indians, with coarse black hair, black eyes, high cheek bones, broad flat noses. Two of them, Anvik and Anuk, were much in evidence.

Hanging about Nome, now, we heard much of the real purpose of the trip, of the supposed rich hidden continent up there in the over a million square miles unexplored. The more I heard of it, the more I wondered was there a traitor among us?

Came at last the morning set for sailing.

"Where's Ken?" It was Commander Scott to me.

"Isn't he on board?" I shouted back in the same hustle and excitement that accompanied the start of each flight.

"No. Haakon, Anderson, and Rothen have looked all over. They report they can't find him!" He turned away, impatiently.

Just then Craig appeared, perspiring in a sheep-lined leather coat, his helmet in his hand. He had just heard.

"Confound Ken's insatiable curiosity," I exclaimed. "He's always wandering off to see some natural or native wonder."

Kennedy was troubled. "But, Walter, this isn't like Ken. He was eager to start. The Commander will wait an hour. We must find him."

We had the whole town of Nome upset searching for Ken, but without a trace.

"Come on," decided Craig, "to the villages!" The dogs gave defiant barks; children tumbled out of huts in joy at seeing strangers. The older ones were more quiet. I saw one surly looking fellow standing by his hut. It was Anuk, though I did not know him. He started forward, hesitated, stopped.

"Speak English?" asked Craig. The man nodded. "See a boy, about so high?" He pointed at one down by the water. "White?"

The dark eyes looked at us shrewdly. "So big—so thick?" With dirty hands he emphasized his gutturals by indicating about Ken's height and slenderness. Craig nodded eagerly. "Him go Slippery Trail. Much gold!" His eyes glittered.

"Show the way?"

Slowly Anuk's hand went to his pocket. He pulled out an old greasy pocketbook, a gift from some miner, opened it, held it open upside down. Nothing came out. It was significant.

"All right. I'll give money." Craig slipped a gold piece to him. "More, when you find him!"

The Eskimo started off on a run. We followed on to where there were some old abandoned shafts.

Anuk stopped. "Hear?"

Yes, we did hear. It was like a call for help. But we could see no one. Ahead was a shaft. Kennedy pushed ahead of Anuk. "I hear something!" Craig leaned over exultantly.

"That Anvik and an Indian lowered me down here!" came Ken's voice floating up the shaft. "I was saying good-by to some Eskimo kids. They carried me off."

"Are you all right?"

"Only bruised a little. They threw the rope after me. Can you catch it, if I throw it up? I have it coiled."

Anuk was working for more money. He climbed down the shaft like a mountain creature, caught the rope. Then the three of us hauled up Ken easily, scratched and bleeding and almost numb.

"Was he the man who brought you?" I nodded.

"No; Anvik and an Indian. Anuk is Eskimo."

Craig paid him more gold. Anuk was not averse to taking gold to undo what his companion Anvik had done for gold.

We pushed on back. But it was far over the hour. Craig was worried.

As we came, nearly two hours late, into Nome we could hear the whir of the engines of ZR-10. Ken groaned. "I'm your Jonah!"

"Good work!"

Down the street were Commander Scott, Haakon, and Jones.

"Couldn't leave that boy, back." As Scott spoke I realized that no one could live with a boy like Ken without that boy finding a place in his heart. "Kennedy, I thought something was up, somebody

wanted to leave you behind. I almost fell in the trap, too!"

So it was that at the last minute of sailing we knew there was a traitor among us.

We were off at last, nosing our way into the unknown up beyond the tree line of the Arctic circle, over the tundras, vast green marshy plains now, brown frozen plains until the winter snows covered them with white. In the short Arctic summer they were covered by peat moss or tundra in the lowlands.

We had started with skies blue and air clear and sparkling. Five hours later we ran into a thick bank of Arctic fog. Try as we might by rising and modifying our course we could not run out of it.

"Try the radio!" ordered Commander Scott.

"I'm not getting a thing," replied Anderson. "And of course I can't tell whether anybody is getting anything I'm sending. The direction finder won't work, either!"

We looked at each other nonplused. If we could not get JAZ, then we were indeed out of touch, lost.

"You know, they said that up here in the Arctic one wouldn't be able to penetrate the auroral band with the radio," said Ken.

"Macmillan disproved that last year," put in Craig.

"Still," explained Anderson, "it is difficult to get messages here, and I knew it would be. But not on account of the aurora. It is on account of the twenty-four-hour day. In winter darkness it is easier."

On we blundered, as near north as we could by dead reckoning, trying always to climb up over the huge fog banks, too.

I had all but given it up, decided to trust to luck alone when at last the sun burst forth in dazzling beauty. We had been able to climb above the fogs, for it seemed that the fogs now were lower than they had been farther south. But we had been carried far out of our course. Where were we? Were we right?

Suddenly a voice, a powerful voice sang out even above the drowning drone of the motors. It was Erik.

"Look! Land!"

We strained our eyes. Sure enough, there was the Arctic paradise. We came down a bit. It was clear here.

Landing might be made on this mountainous continent with its glaciers, rivers of ice, and green valleys. But if any one took a chance in one of Jones's parachutes, which were safe enough, how would he ever get back? And normally it took two hundred men to handle ZR-10 on a landing. We had tried submarines and motor trucks in handling her, with success. But submarines and motor trucks were thousands of miles away, now.

Commander Scott called for volunteers. Erik and Tighe stepped out immediately, even before the rest. Then we learned that they were going to attempt the use of a newly developed grappling iron, which was to be cast off by us, and fastened in the earth by them as we floated in over the shore retarded by a gigantic sea anchor.

The air was remarkably quiet and the whole operation was carried out with the utmost success. There was ZR-10 riding safely fastened to the new continent!

In relays we all took turns on landing. Soon we were surrounded by these strange men who could not speak our language, nor could any of us speak theirs, even two of the crew who had wintered with the Eskimos. For these peaceable men were not Eskimos. They were blonds, and the Eskimos were dark. The nearest thing to them of which I had ever heard were Stefansson's blond Eskimos. But even they were vastly different.

One after another we took our turn at signs and gibberish. No one had any suc-

cess like Erik. Slowly he repeated words. Then, of a sudden, he turned to us, his face glowing.

"They are—they must be the lost Vikings!"

Phonetically, as nearly as I could make out, the names of these two men we had first seen were Hiak and Akhinot. They were taller than the Eskimos. There was a contrast in their light hair with the coarse black of the Eskimo, eyes almost blue, regular noses. They wore fishskin garments now, instead of furs, although they gave us to understand they wore the furs in the winter. The fishskin had an added value in that in case of necessity you could eat it.

Word by word Haakon was establishing relationship, that is as near as one could when one's brothers had gone back thousands upon thousands of years to the Stone Age while you had progressed through the most wonderful thousand years of the human race.

We learned of fish, salmon in incredible numbers, whales, walrus, sea otter, and fur seal, of fur-bearing land animals, polar bears and a bear like the peculiar Alaskan glacier or kodiak bear, of a white Arctic fox, and a light gray wolf, basal stock of their sledge dogs.

It was amazing. Here we were among men who were as our very forebears had been, ages ago, in the days of the saber-tooth!

Ken was keenly interested. It was his first contact with true aborigines. For instance there was a girl who sang and tried hard to please. She carried what proved to be a native drum. Ken knew a drum when he saw it.

"But look!" She's shaking it, instead of beating it!"

It was true, she played it like a tambourine unlike the Eskimos. When Ken took the drum and with a couple of sticks started to play it, there was consternation. Was he going to ruin it? He sang the Star Spangled Banner, beating time with his makeshift drumsticks. Hiak's guests were delighted. One of the women passed Ken a seal's flipper to eat, a delicacy in token of approval.

"Uncle Craig!" Ken was dragging Craig over to the fire. "See, the fireplace is built of black stones. They're red hot. I saw lots of them, washed round, where the river runs into the sea. But they're burning. Hiak's wife is burning stones!"

Suddenly Kennedy changed from an ethnologist studying the almost Runic songs to the geologist. "Ken, that's coal —anthracite!"

Excited, Ken dragged us to the creek where he had been hunting crabs and had seen the black stones and black earth.

Quickly Craig traced them to their source. There, outcropping, was a black bed of coal, standing out between the rocks above and below, six feet or more of it.

Hiak was ready with his gibberish. I gathered that over the mountains was coal that could be lighted, soft, bituminous coal. Yet here were these people, with millions of tons of coal, freezing in winter!

As we took a short cut back to our camp, Kennedy began sniffing. The air was filled with a peculiar smell. The very earth seemed greasy. A pool near by was coated with a steel blue scum.

Hiak again, by signs, made us understand that they laid cloths on this ground and soaked the stuff up to use as medicine, for what I took him to mean, in his pantomime, rheumatism and sore throats. He indicated that most of his people thought it injured the land and had gone elsewhere to live.

As he gestured Kennedy uttered just one word, "Oil!"

"Mr. Kennedy," called Commander Scott, "I will let you name this con-

tinent, as you will, whatever it may be."

"Then I christen it Arctia—the land of surprises!"

Arctia it was to us, after that, too.

A few hours later where the earth looked a certain way to Craig he had Haakon and another drive in a pipe. Suddenly from the pipe came a rush of something slightly bluish, cold. Kennedy gingerly extended a long burning brand. Instantly it lighted, a long tongue of flame! It was natural gas from a cavern underneath. In the long Arctic night I could imagine this flame rising and lighting up the country for miles around, making a scene wierd, ghostlike, almost terrible.

I was amazed. Here was a region perhaps three times the size of Texas, another Alaska, as big as the whole United States east of the Mississippi, the whole area originally in 1783.

"Planting the American flag here may be an act of foresight for future generations," exclaimed Kennedy, "as great a patriotic feat as buying Alaska. We have solved the world's last geographic riddle!"

"And," I cried, "it makes possible the dream of a regular transpolar air route for mail from London to the Pacific coast and to Asia! That route must cross American territory!"

I had half expected an Arctic paradise, perhaps surrounded by volcanoes and hot springs that made it semitropical or even temperate. There were hot springs, just as in the Seward Peninsula, and in Iceland, half around the other side of the globe. But it was still far beyond the Polar circle. Kennedy was right—Arctia.

With its sunshine all day and night, the continent of Arctia was a land of wild surprise, topsy turvy land, here at the top of the world, of which we had known so little.

For here some rivers ran uphill, ice sank, or it bent like rubber and flowed like liquid soap. The ocean was hot and these lost Vikings bathed every night in it. Darkness was more agreeable than sunshine. Flowers bloomed. The wind blew vertically—up and down. And there was more food than people knew what to do with. It sounded crazy, but it was true, with explanations. Glacial rivers they were that ran straight up hill. One great glacial sheet, perhaps a thousand miles long and ten thousand thick, had down its blue white face in July thousands of rivulets in the ice sheets, the small streams joining in crevasses, growing into roaring torrents. Pressure from behind forced it actually uphill. Almost a geyser in some places spouted up from the body of ice.

Of course when there is a certain combination of temperature and barometric pressure, any lump of ice will sink like lead. Also, salt water freezes only when the temperature is down at ten or below, because of its salinity. But between ten and twenty it forms an almost gelatinous mass that bends unbelievably before it breaks. Another thing in this amazing Arctia land. Heated air from the equator comes down at the poles and travels back again. If the air traveler flies high going north, low coming back, south, he has, in the main, favorable winds all the way.

But before we left, having delayed every hour we dared, we found Arctia indeed a land of wild surprise—not always agreeable.

We were just about to be hauled up to the ZR-10 when Akhinot came among us again, this time with another native, Neila. To our consternation, by signs we made out that far over on the other side was a pile of rocks which had been set up by some men with beards who had come in a boat the year before. They had planted a flag, a red flag! Commander Scott's gloom knew no bounds. Then, after all, we had been too late!

We could not stop another hour. It was imperative, if we were to obey our orders on schedule for our own safety, that we not even map more of Arctia that we had done. We must be on to the Pole—and back again, ere began to settle that terrible Arctic night that might otherwise be the night of death for us.

So we cut loose the grappling iron, sailed with a bit of heavy feeling in our hearts.

On to the Pole, at last!

Our feelings rose as observations showed, several hours later, that we were hovering right over it. Down there was the open sea, full of ice floes, gigantic floes. But it was the real top of the world!

As the crow flies, it was 1287 miles from Point Barrow to the Pole. We had gone much over two thousand miles, however.

"And, do you realize, Mr. Jameson," cried Ken to me, "that this is the Fourth of July!"

Haakon was tossing over the Santa Claus letters in a big water-tight can specially constructed so that it would float. On it was a message to communicate with the Navy Department wherever on the earth the can should be carried by ocean currents and picked up. Most likely it would follow the line of drift of the "Jeanette" wreckage across the Pole, down the Greenland Sea, through Denmark Strait between Greenland and Iceland and into the north Atlantic.

"Peary found no land," observed the Commander. "He sounded through the ice to a depth of fifteen hundred fathoms without reaching bottom. Scott was shaking his head in disappointment even in spite of our glorious success. "So we are not first here, either. Peary was here, April 6, 1909. We're nothing more than tourists!"

He gave orders to circle the Pole, as near as we could calculate it.

Then we were off to complete the flight to Spitzbergen, Nova Zembla and Franz Josef Land. . . .

We were just heaving in sight of Spitzbergen. when Commander Scott, solemn faced, called Kennedy aside in one of the forward cages.

"Kennedy," he whispered, "it's happened!"

"What's happened?"

"Some one has been in my quarters, has stolen my personal report that I am making, the photographs and maps, all the observations in it that I made of the continent Arctia. It's missing—the whole thing!"

The Commander regarded Kennedy strangely a moment. "I don't like to say it, Kennedy," he went on under his breath, "but you know how I have been with Ken Adams? He's the only one I've given the freedom of my quarters. Do you suppose, not realizing the enormity of it, the kid's been—er—tampering with things—through curiosity?" he hesitated. "Besides, I don't know that I like some of his bosom friends—a hundred per cent!"

Kennedy restrained an exclamation. All he said, after a moment, was, "We'll watch. Treat him just as you always have—and watch!"

There was coming a sudden change of the comparatively mild temperature. The mercury was falling fast and low. Great banks of clouds loomed ahead. We could not turn and flee, beat them. The hurricane was upon us almost before we knew it.

At first the Commander tried bucking it. But it was not many minutes when we knew that we were indeed in for it, that the best we might hope was to bend to the gigantic will and power of Nature and trust in God. We were scudding down across the Arctic Ocean, before we knew it, headed with the terrific gale, as near as we could make out, for the North Atlantic.

Kennedy had been keeping a watchful eye on Ken. "Uncle Craig," chattered Ken with the cold, as the water vapor of the clouds in which we were lost seemed to penetrate everything, "this is the first time I've felt actually afraid on the trip!"

Craig managed to get Ken down along the lower walk where we slept in hammocks and bunks. The wind whistled like an angry spirit through the cables. The cloud was impenetrable. Our oiled coats shone with the drops of moisture congealing on them.

On, on, with irresistible fury the hurricane drove us relentlessly before it. It was as though Nature resented the presumption of man in prying into her hidden secrets. How small even this great airship seemed as it bucked a cloud more huge and dense even than the one we had just passed through, how fragile, how helpless!

It was hard to keep courage. It was like being in a motor car at seventy an hour when the steering gear suddenly becomes useless. In those few split seconds one can do more thinking than at any other time in one's life. It was Ken who was imagining that.

Craig tried to laugh. But there was an intended seriousness in it. "Ken, just now the only one who can steer our wheel is God! We are in his hands!"

The Commander was issuing orders in his most naval manner. Things were serious when he adopted that.

With sudden swoops we seemed to dart down, with a rapidity that invited disaster. Then we would right and, straining and creaking, fighting every foot of the way, the ZR-10 was forging ahead with the elements in such a battle as never before had been fought by her.

"Get Ken inside—and keep him inside!" ordered Commander Scott.

Craig nodded to him. He took the boy by the arm and, as well as he could, piloted him to the corner of the Commander's quarters. "You know, Ken, this part of the ship is sacred—the records—everything!"

It was the gondola containing the captain's cabin and chart room.

Terrified, Ken sank in a heap in the darkness of the Commander's own bunk, his face in his hands.

For a long time he lay there quietly. Then suddenly he seemed aware that some one, something, was there with him. What was it, up here in the air? Was it an evil spirit? He lay out straight and quiet, listening and watching in the noise of the engine and the elements, almost frantic with fear.

Again he heard that noise. It was some one! A sudden flash of lightning. There was a man in the room with him! He was at the Commander's files and records! Always the orders had been absolute about them. Who was this man?

Ken squirmed a little closer. What was his horror to see the man, his back to him, with the precious log book, the treasure of the trip. He held it up, as if he were hunting for certain pages. Suddenly his hand made a motion as if to tear them out.

It flashed through Ken's mind, "This is the spy Uncle Craig was to catch!"

Ken drew himself up, standing on the bunk edge, clinging. He waited a moment for the careening of the ZR-10 to help him. Then with a leap he was on the man's back, kicking and pummeling him, and screaming for help. The log book dropped to the floor with its partly torn pages.

Craig had been on his way to see if Ken was all right. In the door he grappled with some one in the darkness of the crazily pitching airship. The man broke loose.

Another wild wallop of the wind, another dip into eternity. Wild-eyed, with

black hair stringing about his face, the traitor stood for a moment, trapped.

Kennedy reached for him. The man dodged, lost his balance. The dip of the ZR-10 carried him to the rail. He tried desperately to catch himself. But through it he went with a piercing oath. It was Jones!

Craig gathered Ken in his arms and forced him back into the Commander's quarters where lay the log book safe, with its precious records and observations.

There was a quiet smile on Kennedy's face as Commander Scott stumbled in, clinging for his life in the gale. But he said not a word.

The Commander appreciated Craig's silence better than a flood of words. He reached over and grasped Ken's hand. "My boy, forgive me—you're a brick!"

Ken looked at Craig. What did the C. O. mean? He had done nothing, nothing but his duty. Kennedy never spoke. The storm and the tragedy were speaking loudly enough.

On westward and southward we scudded, over the heartless ocean that had engulfed the faithless Jones in a deserved death, on south of Iceland, Greenland, until, as the north wind abated its fury, we saw that we were far above what must be Labrador.

How like blind fate it was! The sun had broken out. The clouds had been dissipated. The air was mild again. It was the height of gentle summer.

Up the valley of the St. Lawrence we picked our way, limping now, homeward bound. We had crossed the Pole first—had virtually also been first around the world in an airship, in a technical sense. But it was still the continent of Arctia that was on all our minds. Had we failed—come a year too late?

Craig had been looking through the scanty effects of Jones. There was the Commander's report on the continent, the photographs. But among them Ken had found a paper, written in a sort of cipher. It had interested Craig who was trying to figure out Jones. He spent some hours trying to decipher it.

"Mr. Jameson," Ken had evidently been turning something over and over in his mind. At last he had to say it, let it come out. "What did the Commander mean—when he said to me—'My boy, forgive me—you're a brick?' I——"

I shook my head, interrupting. "Oh, nothing. . . . Just that you want to be careful with whom you make friends. What is it, Craig? Have you found the key?"

"Yes! Listen. 'Find the natives 'Akhinot and Neila. They will swear to the story of our people the year before on the other coast. I bribed them with my watch and some trinkets.' "

Ken almost danced as Craig decoded it. "Then, Uncle Craig, it was all a fake, that story, a fake by this Jones—Jaune, you say his real name was—the red Bolshevist? We did discover Arctia! It does belong to our country! Hoo—ray!"

The Attack on the Pole

By P. W. Wilson

Map Reproduced by Courtesy of the New York *Times*

THE North Pole—conquered in 1909 by Peary and his sledges—has been reconquered at last by flying men. Over this triumph of supreme daring, the United States has reason to be proud. The first airman to cross the Pole was Lieutenant Commander Richard E. Byrd, trained in her Navy, and brother of Governor Byrd of Virginia.

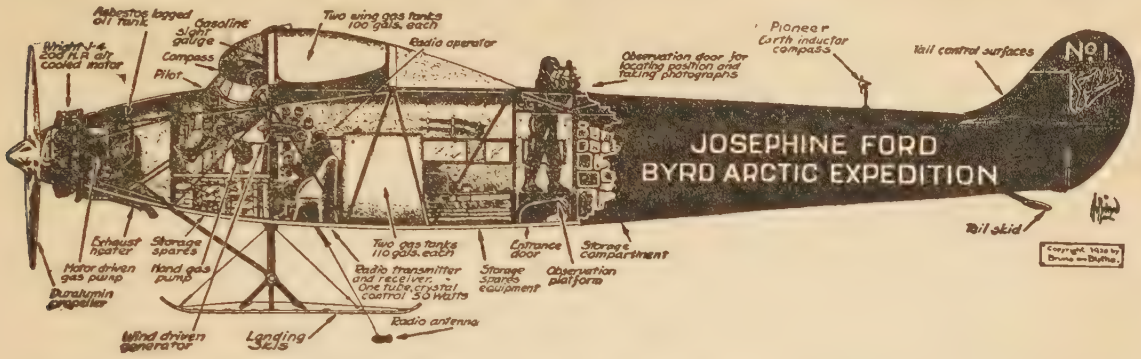
For weeks, the bulletin boards of ten thousand schools and colleges displayed a map of the Northern Arctic. And on that map, the ice cap, usually so cold and white and vacant, appeared vivid as a silver screen, within which, hour by hour, was unfolded a drama that fascinated the world and transformed geography from a weariness into a romance of supreme adventure. Day by day, we watched the blue rim of the charmed circle where was developing the siege of the still lonely axis on which this earth revolves. Steamships arrived. Airplanes were assembled. Stores were unloaded. The preparations were on a scale vast and varied. Never before had there been so costly an epidemic of exploration.

It is a spectacle that takes us by surprise. After all, Peary had already reached the North Pole. And in 1911, Amundsen, closely followed by Scott who died on the return journey, had reached the South Pole. When a climax so glorious has been achieved, why worry to attempt what at best must be an anti-climax?

The answer is that, in all ages, the pioneer has blazed the trail for others. In Switzerland, there is a famous mountain called the Matterhorn which, for centuries, had been regarded as inaccessible. But in the year 1865, the crag was conquered. And during the next fifteen seasons, this peak, which had seemed to be so impossible, was mastered by no fewer than two hundred parties. That is why the "dash for the Pole," by Peary, has developed into a rush for the Pole by the crowd. In 1909, Peary, and four others set eyes on the coveted wilderness of pack ice. This year, the Pole has been seen by at least nineteen pairs of eyes. Not one, but three expeditions made the great attempt. And next year, the expeditions may be three times three. Amundsen assures us that the age of exploration is over. And, in due course, it may well be that the enterprise which to-day thrills us with its hardships and uncertainties, will be advertised in the newspapers as a pleasant vacation!

The heroism of these airmen has been beyond belief. Look at the map of the Arctic Circle. At one point on its circumference, you will see Alaska. Directly opposite Alaska, there lies Spitzbergen. Anyone, therefore, who flies direct from Alaska to Spitzbergen or from Spitzbergen to Alaska, crosses the North Pole. And the distance is about 2,000 miles.

Of the three expeditions, one only selected Alaska as base. It was led by Captain George H. Wilkins, with whom was Lieutenant Carl Benjamin Elelson



This is a diagram of the Byrd Fokker airplane that flew to the North Pole. Although three men are shown only two made the trip

the aviator. And it consisted of two monoplanes—the *Alaskan,* with one engine, and the *Detroiter,* with three. Stores were accumulated at Fairbanks. They had then to be carried by airplane over the mountains to Point Barrow, the advance base. And it is this preliminary flying which has upset the attempt. The distance each way is 520 miles. And after three risky trips, during the last of which Wilkins was lost for two weeks, the *Alaskan,* on starting again from Fairbanks, was badly broken. Wilkins was thus left with the *Detroiter,* which failed to cross a ridge called Brooks Range. The gallantry of Wilkins has been magnificent. He has flown 3,000 miles across the eternal snows of lofty mountains. And his arm was injured. But from the race to the Pole he had to be eliminated.

The second of the expeditions was commanded by that splendid viking, Roald Amundsen, already victor of the South Pole. Last year, he had made a dash to the Pole by airplane, but had failed; and with his friend, Lincoln Ellsworth, an American, he decided this year to use a semi-rigid Italian dirigible, renamed the *Norge* and designed by Colonel Umberto Nobile, who accompanied the explorers. From Rome, or Italy to Nome, or Alaska, was the slogan of the Amundsen-Ellsworth airship. And the vessel proceeded by way of England to Russia, refitting near Leningrad. Thence, the *Norge* sailed to Kings Bay, Spitzbergen, where had been erected an immense hangar, with walls of wood and roof of canvas, the biggest building in the Arctic Regions, with a mast of reinforced concrete, one hundred feet high, which was only put together after superhuman efforts. There were three sections, each weighing forty tons.

That the *Norge* would encounter hardships in the Arctic Regions was to have been expected. But that her voyage over Europe, all of it in the Temperate Zone, should have left the crew in a state of prostration was due to astonishing lack of foresight. There was no protection from cold—no arrangements at all for sleeping—and no food except sandwiches which the men brought themselves. Even spaghetti was forgotten. And a needless strain was imposed upon the morale and health of a gallant crew. But despite these handicaps the *Norge* was able to fly seventy-one hours and to cross the Pole, cut through the Unknown Section and land at Teller, Alaska. The news of that event is so recent further particulars are omitted.

Lieutenant Commander Byrd led the

third expedition. He sailed from New York on the steamship *Chantier* of the United States Mercantile Marine and took with him a Fokker monoplane, the *Josephine Ford,* so named after the granddaughter of Henry Ford. His difficulties were enormous and some of them might have been avoided. For instance, 900 tons of coal, bunkered aft, had to be moved forward during the voyage. And at Kings Bay, Spitzbergen, the landing of the plane was only effected by means of a raft, constructed of the ship's lifeboats, which was paddled through the ice like a Roman galley. It was a picturesque but an anxious moment.

At Kings Bay, Byrd came into friendly touch with Amundsen who—a generous rival—resolutely declined to engage in "a race for the Pole." The two men talked. And Byrd learned that, in 1925, Amundsen and Ellsworth, after their trip with planes, had reached two conclusions—first, that nowhere on the ice cap is there safe landing for such machines; and secondly, that if a landing be effected, it is only by a miracle that you can start again. To avoid a landing was the reason why Amundsen abandoned the plane and adopted the airship.

The "ice pack" is subject to the pressure of a constant drift across the Pole. It crumbles into ridges and ledges of which the dimensions are manifest in an iceberg. It is true that Amundsen managed to alight. But only on a narrow strip of water, which froze around him and had to be kept clear by superhuman efforts. Walls of ice rose on every side, through which he had to cut a tunnel for the plane, also building a bridge across a chasm on the other side. After moving 800 tons of sheer glacier, he obtained a speedway along which, by a miracle, the plane was able to get into the air again and fly back to its base.

The testimony of Amundsen was borne out by the evidence of Commander Byrd himself who, in 1925, accompanied Donald B. MacMillan on a prospecting expedition to the North of Baffin Bay. He reports that the "summer" consisted of only fifteen days of which four only were good for flying. Still, with three planes, his party flew 6,000 miles. And over an area of 30,000 square miles, they discovered broadly no landing where a plane would escape certain destruction. Neither land nor sea was free of ice, which would have been as rough as sheer rock. Skiis would have been useless. Indeed, even on prepared snow at Kings Bay, Captain Byrd's skiis crumpled like matchwood.

This is why Byrd so suddenly changed his plans. Like Wilkins, he had intended to establish an advance base on Greenland but he decided now that he would not risk the additional trips required. He would stake everything on one long hop.

With his plane heavily loaded—it weighed, with cargo, 10,000 lbs. or about five tons—he made a false start. But at the second attempt, the plane lifted and in just less than sixteen hours, Byrd with his pilot, Floyd Bennett, flew about 1,450 miles—the speed being ninety miles an hour. In an area so near the magnetic north, the usual compass was useless. The sun compass—which is merely a watch dial, marked with twenty-four hours—was used; and it was the watching of this instrument that caused Byrd to expose his face and fingers to frostbite—a penalty that, in the design of future planes, will be, doubtless, avoided.

It was on the morning of May 9th, that Byrd circled round the Pole. On the 11th, Amundsen, Ellsworth, and Nobile set forth on the *Norge,* crossing the Pole, early Wednesday morning the 12th. On Wednesday night, the *Norge* was reported off Point Barrow. There storms blew her

back towards the Arctic Sea and only by the severest of battles was the ship brought to Teller where she was landed and was dismantled. Her exhausted crew had had such a narrow escape that it was

inadvisable to fly on to Nome only ninety miles distant.

Thus has the North Pole been captured for contact with civilization. Indeed, an enthusiast like Stefansson assures us that we misunderstand his beloved Arctic. We read of ice and snow and blizzards. And we assume that here is a region of perpetual winter. It is true that from September to March, there is one long night. But this means that, from March to September, there is one long day. And the sun which shines on the Poles is the same sun which shines at the Equator. Stefansson, therefore,

asserts positively that in summer, the Poles receive as much heat as the Tropics. And his statement, based on exact mathematics, is confirmed by meteorologists. What happens at the North Pole is thus what happens in the higher Alps or Rockies. The snow and ice are perpetual but not the frost. Every summer there is a thaw which releases avalanches on the mountains and icebergs in the ocean. And the chief trouble is that the thaw in summer can not overtake the winter's cold. There are always glaciers left. Also, this thaw, which releases open water, raises blinding fogs.

In Arctic exploration, therefore, time is a factor as well as temperature. The question is how much distance you can cover before the winter descends upon you. In his "dash for the Pole," Peary achieved 475 miles at the rate of thirteen miles a day. On the return journey, he traversed a route, already marked, and his speed was twenty-nine and one-half miles a day which was regarded as almost incredible. This meant that, under the most favorable conditions, Peary took six weeks to advance 475 miles and return to his base. A mile an hour was fast going. Half a mile was satisfactory. Today, the speed of the airman is a mile a minute in a dirigible and a mile and a half a minute in an airplane. A dash of a day gets you further than did a dash of a month, under the former conditions. And the explorer fulfills the fable of the Seven League Boots.

You ask why progress under the old conditions was thus slow and difficult. We will put a case. Let us suppose that, this summer, you intended to camp at a point 500 miles from your home, that there were no roads or railways or stores or houses of any kind between you and your destination. If you had to carry your own food, your camera, your equipment over rough country, are you quite sure that the progress of your covered wagon would be more rapid than Peary's or Nansen's? And suppose that you were overtaken by an ordinary American winter. Might it not be awkward? Of the Pilgrim Fathers who landed at Plymouth in 1620, far outside the Arctic Circle, one half died in the first year. And of Napoleon's Army which retreated from Moscow, only a handful survived.

It was to circumvent these difficulties that Nansen resorted to a plan as daring as it was ingenious. He built a boat, called the *Fram*. It had the massive timbers of a whaler and could thus resist the strain of the ice. In the *Fram*, he set forth from Vardo in Lapland and coasted along the north of Siberia until, in September 1893, he allowed the vessel to be gripped by the ice pack directly opposite Greenland. He then waited while the Fram drifted with the ice across the Polar Region. It was three years before the *Fram* made her way back by Spitzbergen to Tromso in Norway. And Nansen's own experience was even more audacious. For like Peary, he left his ship behind and made a dash for the Pole, reaching "furthest north," 86° 14′, but failing to attain to the coveted 90°. He and his companion returned to Franz Josef Land, but without dogs, and for a whole winter, they there subsisted on seal and the meat of the walrus. For years, then Nansen was cut off from the rest of the world, and for months, his was a desperate fight for life.

Nansen and Peary had thus to reckon with the fact that there is a limit of distance beyond which no expedition into an uninhabited region can proceed away from its base of supplies. Peary, therefore, organized five distinct detachments of sleighs which met at a given point. And this became the jumping off place for

the dash. All the available resources of food were concentrated on Peary's own caravan of sleighs. And finally he went forward, with only four companions.

It was like scaling a high wall. A number of men stand on the ground. Others form a pyramid on their shoulders. And, finally, one fellow climbs on to his comrades, reaches the parapet, and scrambles over.

With the multiplied speed, attained by aircraft, there have been disclosed new and serious risks. The old types of whaler and sledge were slow and unwieldy but they were strong. These vehicles were built for rough work and rough weather on land and sea. Unless they were crushed by terrific force, they did not break. And if damage was sustained, repair was simple. It meant a nail and a hammer or a new thong of leather.

But aircraft, whether dirigible or plane, offers the most delicate of all methods of transport. These flying machines are like winged butterflies fluttering over an empire of whales and walruses. They are as sensitive to the beat of a sparkplug as human life is sensitive to the pulse of the heart. A thousand details may go wrong where no detail can be conveniently remedied. The flight across the Pole is a mere flash compared with the former prolonged efforts. The *Norge* herself only expected to be in the air for sixty-five hours.

The *Norge,* as a semi-rigid airship, was built in Italy. And it is natural, therefore, that Germans, with their record of Zeppelins, should be critical of this aërial competition. But there is none the less much force in the German contention that the *Norge,* on her journey "from Rome to Nome" in Alaska, showed herself to be exceedingly particular as to her stable. It took a long time to effect a landing whether at Pulham in England, Oslo in Norway, or Trotsk in Russia. The proposal has been made that the United States should dispatch the *Los Angeles* to the North Pole. The enterprise would be glorious. But equal to the enterprise, would be the risks.

After all, the famous Arctic explorers of the old type were hard-bitten sea dogs, accustomed to wind and wave and snow, to whom the icepack and its meaning were as second nature. These men did not try to be in a hurry. They made their preparations with patient care and they provided themselves with every possible comfort for body and mind. They were tortoises, not hares. And they left nothing to chance. Nor did they trouble to try stunts.

Over the earlier expeditions, we have to-day one clear advantage—namely wireless. In previous years, the explorer was lost to view for years at a time. And nobody knew what had happened to him. It was so in the forties with Sir John Franklin whose precise fate, even to-day, includes elements of conjecture. Who then imagined that it would be possible for operators of radio—indeed, for private operators like Howard W. Thornley of Providence, Rhode Island—to use the short wavelength in order to converse with the crew of the steamship *Chantier* as she carried the Byrd Equipment to Kings Bay, Spitzbergen, the most northerly village in the world. It is as if the Arctics were in the Telephone Book. But the silence over Wilkins and over Amundsen means that near the Pole, there are areas which may be "blind" to radio.

That a million miles of ice cap awaits the survey of aircraft is the plea of those who inaugurate these expeditions. And the question is whether this area is land or water. Russia claims that all land north of Siberia belongs to her. By this,

she can only mean any territory lying between Siberia and the North Pole. And it is almost certain that no such territory exists. The drift of the ice, proved by Nansen, and certain soundings indicate that if land is to be added to the map, it must be on the American side.

Naturally, there are those who dream of gold fields and diamond mines concealed by glaciers. And such wealth may there be hidden—who knows? But the trouble will be to extract these treasures at a cost which will be less than the treasures are worth. The *Norge* reports that no land was seen on her flight, so it would appear that a search for any large body of land would be in vain.

Frankly, then, we see no commercial value in the Polar Regions themselves. The real question is whether the Polar Regions will offer a route for aircraft passing between continent and continent. From Liverpool in England to Yokohama in Japan, it is now a distance of 11,000 miles. Across the North Pole, the distance is under 5,000 miles—a voyage by air of three days. And if the superplane were well heated like a Pullman, the hop might be quite a pleasurable experience. Whether the trip could be made in winter as well as summer is a question, the answer to which depends upon the success of the experts in producing a plane that will face low temperatures. The oil and the gasoline and the water must remain fluid whatever the frost and however penetrating the breeze. And even with such planes, it has still to be shown that the transport can be provided at a fare possible for the passenger.

"Quién Sabe?"

By Bernard W. Kenney

DICK BENNETT cheered lustily when he learned that his older brother Bob had been appointed cashier of the "Cobre Bank." The little mining camp is tucked snugly up in the Malpais Mountains of New Mexico, a good three-days' trip from Mesa City. Years ago, to eliminate the long hard trip down to Mesa City, the owners of the Silver Bell Mine placed a vault in one of their buildings for the pay-roll money and other valuables. This also prevented any attempt to hold up the stage; an occurrence quite frequent in those days. The miners soon learned that the company would keep their savings in the vault if they wished, and the merchants, too, were willing to accept the protection of the "bank," rather than risk a chance holdup of their stores by some bandit from the mountains.

Thus it became known as the Cobre Bank, and now that Bob was cashier, Dick swelled with pride. He could always fill his youthful companions with ambition when he told of his brother's gradual rise.

"Well," declared Bud Wilson, "if Bob could do that, I'm going to be a mine foreman—some day."

"Oh, Bud," taunted "Sleepy" Smith, "you'll have to study gee-ology and everything. Unless you're a genius or something, you'll never make it."

"Not at all," spoke up Dick. "Mr. Hartman, the foreman of the Silver Bell, never had the chance to go to high school. A fellow can do lots of things if he's not too *sleepy.*"

This retort sobered young Smith, and with a sigh he wandered off to find some fool place for a nap; thus living up to the nickname he possessed. The other boys were too lively for anything like that.

"Let's go prospecting," suggested Teddy Miller.

"Or else climb up Baldy Peak," added Shorty McCabe.

"No. Let's play cowboy and get the pony. I'll try to rope you fellows on the run."

"I say, fellows, Dick is always practising with the rope. What are you planning to be, Dick? A real cowboy some day, with big spurs and everything—are you?"

"Quién Sabe?" replied Dick, in a Spanish phrase that means, "who knows?" "I just love to throw a rope, that's all. I may never use a lariat, who knows; but anyway——"

"Listen! What's that?" Several boys spoke at once.

"An earthquake or a cyclone's coming; let's run, fellows."

As Teddy spoke his face paled and his voice trembled. A strange noise could be heard, a peculiar humming sound which could not be located. This increased the mystery, for an unseen danger is always worse. It sounded like the drone of a gigantic bumblebee. Suddenly Dick pointed to the sky.

"Look!" he gasped.

A small speck appeared directly over Baldy Peak and was growing larger every second.

"An airplane, fellows! An airplane!"

The cry was taken up and spread instantly. In a few minutes every one in the camp was out in the street gazing skyward. It was a sight no one had ever seen before.

Business was suspended. The aviator flew over the camp and performed a series of falls and spins that thrilled his onlookers beyond description. With beautiful dips and sudden climbs he brought cheers from every throat. It was an exciting day for Cobre.

Except for an occasional accident at the mine, nothing disturbed the quiet life of the camp. And if the accident proved serious, a holiday was generally declared. Hence the sight of the airplane proved the most thrilling event for many months. The plane began a gyrating movement toward the ground.

"Look, he's going to land," some one shouted, "let's go over and see the machine."

With a whoop the boys started on a run, followed by every one else. John Nash left his hardware store and started off with Mr. Tyler, the druggist; both left their stores open and unlocked. Other merchants did likewise; for what was there to fear? With but a few inhabitants, everybody was acquainted, and no one mistrusted his neighbor.

The machine dropped to a level mesa some distance from town. So it was a strange crowd that trooped out along the dusty road. Some were hatless, clerks with pencils behind their ears, mothers carrying their smallest, and in front of all raced the boys.

Dick Bennett ran home with a package before joining the crowd, and was speeding down the road on his wheel to catch his companions. Suddenly he stopped.

"The bank!" he exclaimed. "Has Bob left the bank?"

The thought occurred to him like lightning that perhaps in the excitement Bob would leave the bank unguarded. And since he had been just recently appointed, it would mean disgrace if he deserted his post. Dick was certain that the other bank clerks would not hesitate to leave, but he knew Bob could not go out without leaving some one in charge. The boy turned instantly and rode back to town.

"Surely, Bob wouldn't do it," he thought, "but I'm going to make sure."

The little camp was utterly deserted when young Bennett got back. The three stores were empty, and a horse stood in the blacksmith shop half-shod; the smith had gone too.

"Well, there's no need of being so excited," exclaimed Dick as he approached the bank, "I don't want to scare Bob to death."

He slipped into a side door which led into the office of the bank. He thought Bob might be in there working on the books. As he entered he heard Bob's voice in the bank, but he couldn't distinguish the words. Dick smiled; how foolish to think that Bob would desert his duty. But just as he started to open the door and surprise Bob, he stopped with a gasp of astonishment. His heart leaped wildly and something filled him with a sense of danger.

It was a strange voice and Dick knew the speaker was talking to Bob.

"Yep," said a deep gruff voice, "while my friend entertains the populace with a few stunts in his machine, my pal and I have been instructed to relieve you of the bank's cash. To-morrow's pay day at the mine. You've got quite a wad of money in here, and that's what we came for. Here, Tom, keep this chap covered while I rustle around for the cash."

Dick stood rooted to the floor. Then the truth flashed through his mind. The airplane was a trick to draw the few

people away from town. The two men in the next room must be the two strangers who were staying at Smith's Boarding House. While the foolish townsmen went to see the machine, the bank would be robbed. It was indeed a simple plan.

At last Dick collected his thoughts. He must do something! Why was he standing there? At first he decided to ride and give warning; but he knew no one was at hand to help and before any one could get back it would be too late. Two saddled horses across the street meant that the men were prepared to dash off with the loot. The boy realized there was not a minute to lose.

He knew he had not been seen. The bandits had evidently locked the front door to prevent possible interruption, but they had overlooked the side door into the office. A plan to mount one of the horses was abandoned, for a rifle bullet might stop him and there was no use taking a chance as long as it was possible to capture the men. Dick decided if they were to be caught it was up to him.

The boy slipped out to the street again, looking cautiously for a third man. Then he flew up the street to Nash's hardware store. It was deserted, and Dick hastened to the gun case for a weapon. He chose the largest revolver of all; then hunted for the proper cartridges among the many boxes on the shelf. Young Bennett was not acquainted with guns, he hardly knew one calibre from another. Hence he lost time trying the various shells. At last he thought he must have the right ones, they seemed to fit. He loaded the gun and slipped a few extra cartridges into his pocket? Just as he started to leave he spied some lariat ropes coiled up near the door. They were made up and ready for any cowboy who might buy one.

"I'll take one along," said Dick, "I might have to tie the fellows up."

So saying he picked up a rope and started back to the bank armed with a big revolver and lariat. He circled around cautiously before creeping into the side door again.

The men were talking, he paused to listen.

"Hurry up there, young fellow," one was saying, "we haven't got all day. The crowd will be coming back soon. Such fools," he laughed, "they run off to see an airship and desert the town."

"We'll see if they're fools," thought Dick, as he crept to the door that separated him from the other room. With utmost care and with a slowness that was painful, he began to turn the door knob. The slightest noise would mean his discovery. He must be careful or all his plans would fail. At last he felt the latch slip and he knew the door would open. Then with infinite care, he opened it until there was a tiny crack to peep through.

A strange sight met his gaze. One robber stood in the middle of the floor with his back to the boy, covering Bob with a gun. Bob was in front of the vault door putting money into sacks and tying them up. Then another man came from the vault carrying more sacks and directed the cashier to put them all into one. Dick shrank back fearing he might be seen.

But the man saw nothing and reentered the vault. Dick raised the gun he was holding.

With the deftness of a cowboy he loosened the rope and prepared to throw it. Courage returned to him instantly, for he felt a greater confidence in handling the rope. His hand no longer trembled, and, as he opened the door he carefully estimated the distance between him and the man. The bandit was still laughing at the joke on the camp, and Bob was bending over the sacks. Neither of them saw the door open. Dick stepped forward to

have space enough for a clear action.

With a slight twist the rope shot forward and dropped neatly over the head and shoulders of the man. It was a surprise that he had not looked for and with a mighty yank, Dick toppled him over. As he fell a bullet lodged harmlessly in the ceiling. Bob stood gazing at what had happened, unable to move. Dick brought him to his senses with a yell.

"The vault door!" he shrieked.

Bob grasped his meaning instantly and swung the door shut as swiftly as he could. The man inside, fearing a trap, had hesitated a moment before coming out. He felt safer in the darkness of the vault, at least until he learned the situation. This momentary pause enabled Bob to have the door almost closed before the bandit realized what was going to happen. With a cry of rage he leaped forward, just a second too late. The momentum of the big door as it swung on ball-bearing hinges, with Bob's weight behind it was more than any man could stop. In an instant the cashier threw the bolt and locked the door.

He turned to see Dick give a quick half hitch around the sprawling man's arm that held the gun, and a jerk sent it spinning across the floor. Then the younger boy tied the fellow securely.

"How in thunder—" stammered Bob, "how did you——"

"No questions now," commanded Dick, "we've got to get that fellow in the machine. He's one of the gang."

"Sure," agreed his brother, "but I can't leave. We've got these two all right. You go and give warning to hold the aviator and then hurry back."

Dick did not hesitate. Dashing out he mounted the bicycle and fairly flew down the road. Several men were hurrying back to their deserted stores. They had not intended to stay long, so having satisfied their curiosity, they began to run back to town. Just then Dick came riding up. In a few words he explained what had happened and together they ran back to the machine.

The mechanic was explaining the machine to an interested audience; it was his plan to keep their thoughts from town. He realized something was wrong however, when he saw Dick and his companions rushing toward him. He started to make ready for flight. But before he could start the machine, the men shouted a warning and he was forced to surrender.

The two brothers were heroes of the hour. A real holiday was declared and Dick had to tell what happened, over and over again.

"Were you scared?" asked Teddy Miller.

"Why didn't you shoot?" queried some one else.

"I'm glad he didn't shoot," laughed Bob, "if his hand trembled like he says it did, he might have shot me."

"Would you, Dick?" teased Mr. Nash.

"Well, I was frightened," Dick chuckled, "and I might have shot myself. *Quién Sabe.*"

Wings of Speed

By Raoul Fauconnier Whitfield

Illustrated by Bob Fink

THE propellers of the five airplanes spun lazily in the afternoon sun, the motors humming a low song for the great crowd gathered about the field. Five white-winged birds anxious to be off—anxious to take the air and cleave their way around the four towers, each four miles apart! Five birds whose crews were even now tuning the ships for the race, making them ready for the two-hundred-and-fifty-six-mile battle over the Brighton Air Course.

Four towers, painted black, stabbing their steel two hundred feet into the sky, were to be the markers of the course, and each one of the towers would have to be passed sixteen times by each airplane. Forty thousand persons, many of them with field glasses, were scattered below the course, ready to cheer the ships, watching for the winner—the plane whose wings would cross the imaginary line between the black and the red tower first.

"Sounds great, eh, Duke?" Rodney Lane grinned at his mechanician as they stood listening beside the motor of the American entry.

"Couldn't sing better," Duke Young replied. "But that English ship has me worried. She has all of the appearances of speed—and then some."

The pilot chuckled. "Unless I miss my guess by a long way, all five of these planes are pretty well matched. I know the French and Canadian ships are right along with us—they'll average a hundred and ninety. That Jap, Kyoti, has a plane I'm not sure about. But he's a whale of a flyer himself."

The mechanician was pulling his helmet over his head. "It should be a close race," he agreed grimly, "and I'm thinking that you've got to handle the stick and rudder with all the old stuff, Rod."

The pilot nodded. "We'll have to fly," he announced briefly, "but I guess we can give a fair account of ourselves. Hop in the back, Duke."

The mechanician climbed into the rear cockpit of the plane, and commenced to adjust the telephone apparatus on his head. Rodney Lane posed again for a belated newspaper photographer, tugged at a few of the wires in the undercarriage, and climbed into the pilot's seat.

Five planes on the dead line, headed into the wind for the take-off! Five ships representing five different countries, each desirous of winning the coveted gold and silver cup, emblem of air-speed supremacy!

Rodney Lane's lips set in a firm line as he dropped into the cushioned seat. If it was within human power he would bring the *Liberty 12* across the finish line first. If it was within human power!

His hands moved the stick, rising between his knees, from side to side. He kicked the rudder control sharply with each foot, and then adjusted the helmet on his head, and the goggles over his eyes. The

roar of the other ships' motors had increased in tone; the start of the race was only a little more than five minutes distant. The pilot snapped the head-phones and mouthpiece, which gave him communication with the mechanician in the rear seat, into place.

"Watch the two ships on your port when we get into the air," he instructed Duke. "I'll keep an eye on the two on the starboard. We won't get away wide open, so the chances are we'll be back of the jam at first tower."

"Right." The mechanician's voice came to Rod clearly through the receivers. "It was a tough break that gave us the center spot."

"Won't make much difference after we get up in the air a bit," the pilot replied.

But the point of the thing was, Rodney knew, that they could not get up in the air more than two hundred feet without having to come down for the towers. One of the rules of the race was that the pilots should round the towers below the level of their steel. And two hundred feet was not much altitude in which to maneuver a plane traveling almost two hundred miles an hour.

The race would be a test of speed and pilots, and also of the planes' motors. Army and Navy flyers of all countries had been barred from the event—it was the commercial plane organizations which had entered their pilots and ships. Elimination races had been held in each country, and Rodney Lane, piloting the *Liberty 12,* built by the Ajax people, had survived the American field. Now it was an international matter.

"There goes the gent with the checkered flag!" Duke called Rod's attention to a man who was slowly walking to the opposite end of the field, a bright, yellow-and-red flag—the starting flag—dangling in one hand.

"We've got about three minutes," Rod muttered to himself. He gave the throttle at his left a slight push forward, and the motor of the *Liberty*—twelve cylinders tuned and set to the second—roared into voice. The American entry strained at the blocks which had been placed beneath her wheels, the tail rose in the air. Then the pilot cut the throttle, the tail dropped back to earth and the motor diminished into a low, even humming.

"Take the blocks away," Rod called to one of the crew standing a few feet from the huge plane, and his eyes went to the man with the checkered flag, who had stopped at the extreme edge of the field, and was holding the flag high above his head.

"Watch the port side," he cautioned Duke once more. His right hand tightened about the stick, his left went to the throttle on the inside of the fuselage cockpit, on his left.

With a flash of vivid color the starter dropped the checkered flag downward. Five planes roared into life! Five winged birds leaped forward, straining to get into the air! The sound of their engines drowned the cheers of the crowd gathered about the field; smoke from their exhausts shot behind them in long trails. The International Speed Race was on!

Rod held the *Liberty* on the ground for at least fifty yards. Out of the corner of his eye he saw the English plane take the air. The Japship he could not see at all. When he pulled the stick back into his stomach, and the American plane rose from the ground, Duke's voice came to him, calm and clear.

"The French ship's close—same altitude, same speed. She's about twenty-five yards away. The Canadian's climbed to about three hundred feet. She's quite a bit behind. Plenty of room above and below, so far as I can see."

"Good!" Rod opened the throttle two notches. A glance at the air-speed meter showed him that they were doing one hundred and eighty-seven miles an hour. The ground streaked below—trees, houses and people a mass of blurred color. The roar of the *Liberty's* motors was deafening, but the air was fairly quiet.

The pilot glanced to the starboard. The English plane was a short distance ahead. Perhaps fifty yards. He twisted his head in a quick movement and caught a glimpse of the Jap plane about the same distance behind.

"We're in second place," Duke announced. "And you have plenty of air for the first tower turn."

"Plenty," agreed the pilot grimly, thinking of the fifty yards in which to maneuver. When three planes were doing close to two hundred, fifty yards was not much. The slightest slip, the least pressure on the stick or rudder, and a crash would result.

The tower loomed before them. It was of skeleton steel, resembling the battleship masts. Almost before he could realize it the American plane was upon the stabbing marker. It was a left turn, and Rod kicked the left rudder sharply and shoved the stick far to the right.

The plane went over in an almost vertical left bank, wing to the ground, wing to the sky. The vibration was sharper, and the roar of the motor seemed louder as they flashed by the black structure of steel. But Rod heard a groan from the mechanician as he straightened the plane out again, and headed for the next tower four miles away, and only dimly discernible in the sky.

"Too wide, Rod—too wide!" The pilot nodded his head, which was the only part of him that Duke could see from the rear cockpit. There was no question about the turn. It had been made far too wide. The French ship had gained much air on them, and the Canadian, diving down to get below the level of the tower, had swung close to the steel and was now on even terms.

The English plane, piloted by Herbert Ranesdale, ex-Captain and ace in the World War, had gained a lead of a quarter mile. Only Kyoti, the Japanese pilot, was behind the American plane.

But the race had only commenced. Averaging three miles a minute, they would be in the air close to an hour and a half before the victor was decided. Eighty miles in thirty minutes or less! That *was* speed!

Onward through the air the five planes roared. Onward toward the second of the towers marking the squared course. A road now streamed below, and Rodney glanced at the automobiles which they left behind as though they were standing still. Machines that were probably doing forty or fifty miles an hour.

"A hundred and ninety-one." Duke was calling the figures he read on the air-speed meter in the rear cockpit.

"Right." The pilot's eyes were on the second tower, now streaking toward them. He could not afford to make a wide turn again. If anything, he would have to swing so close that the American ship would gain some of the lost air.

But Duke's voice cautioned him. All of the turns were to the port, to the left, and the Canadian was flying on even terms and on the inside.

The tower flashed upon them. Black and menacing! Rod kicked left rudder, jerked the stick in the same direction. This time the American ship went into a vertical bank. Wing straight to the sky, wing straight to the earth! The pilot's eyes strained to catch the wings of the Canadian.

"Hold her!" The mechanician's voice snapped into Rod's ears. "He dove below. Must have lost his nerve."

The black markers shot behind. Controls were again in neutral—the *Liberty 12*

was roaring toward the third tower, and this time she was in third place. Behind were the Canadian and Japanese planes.

Roar of the exhausts, vibration of the plane, song of the wing flung with terrific force back into the pilots' faces! Below were fields, unploughed but rough. A forced landing from so low an altitude, with the little chance afforded to pick a spot, would be a certain crash.

"We're a good third." Duke was peering behind. "The Jap and the Canadian are a quarter of a mile back, fighting it out about even. I can't place the other two."

"Ranesdale's a quarter mile ahead," the pilot informed. "Le Fabre's not far behind him. They're not flying any faster—they gained the ground on that first turn."

"At this speed a wide turn means a big loss," Duke stated grimly. "But that last one of yours was a dandy."

Another tower plunged into vision. Rod grinned and swung the plane slightly to the starboard. Once more—left rudder, left stick—a vertical bank. But this time they gained. The heads of the two men hung within ten feet of the massed steel as the American entry roared around it.

Neutral controls, ship level—and again the clear stretch. Four miles away there were two towers, the one on the port side, the marker of the course, the one a quarter mile on the starboard, painted a brilliant red, representing the finish line. It was as if a tape were flung between the two—the black and the red. But more than fifteen laps must be accomplished before the finish line was crossed.

"Great!" Duke uttered the one word enthusiastically. "That *was* a turn!"

"I'll swing out before we round them from now on," Rod answered briefly. "How do things look behind?"

"The Jap is on the Canadian's tail. Looks as though he's flying at a hundred and fifty feet or so. Lower than we are. We have gained some on both of them."

"We gained some on the other two, also." Rod became silent as the starting field swept below them. He got a glimpse of waving arms, of a large white strip of cloth shaped like a figure two spread on the field, and then the fourth black tower was upon them.

They rounded the steel at a speed of one hundred and ninety-two miles an hour, but the turn was only fair. The wind crossed them at this turn, and even though Rod got the *Liberty* into a vertical bank as swiftly as his hands and feet could move the controls, they skidded.

But the English plane had evidently fared badly at the turn, too. Le Fabre had the rebuilt *Nieuport* up close to the leader, and the American ship was a good third.

"Second lap!" Duke yelled loudly into the phone. "Everything's pretty."

Fields below them. Green fields, and a low hill, upon which had been laid a strip of white cloth pointing toward the first tower, as a help to the racing pilots. The air was bumpy along this stretch, and Rod found himself kept busy manipulating the stick and rudder.

Duke noticed the action of the controls from his double set in the rear cockpit. "Air's sort of rough," he remarked.

"You're kidding me," Rod replied. But he was too busy to joke about things. His goggles were commencing to cloud from the oil. And then, hardly had he raised a gauntleted hand to wipe them off—when the next tower was shooting toward them.

"One hundred and ninety." Duke called the speed cheerfully, as Rod straightened the ship out from the bank. "And we held our own there."

Rod grinned. "We've got to do more than hold our own in order to win this race, Duke. These boys can fly!"

"So can we," the mechanician muttered,

grinning to himself. "I know because I've been there!"

On the fifth lap, at the third tower, the first accident of the race occurred. The Englishman had been fighting it out at each turn with the Frenchman, and Rod was gaining slowly but steadily. When the three planes approached the third tower, on the fifth lap, they were close. Le Fabre was on the inside and the Englishman on the outside, twenty yards or so in the lead. The American plane was fifty yards behind Ranesdale.

All three ships were much too close for the speed at which they were winging their way through the atmosphere. Rod, anxious as he was to get into the lead, and attempt to hold it, swung the *Liberty 12* out as he approached the tower.

The two leaders roared on, neither giving airway to the other. The whole thing happened so quickly that the American pilot and mechanician only got glimpses of the action.

Le Fabre banked too soon, saw how close he was to the tower, and leveled off again. Ranesdale had gone into a bank, and evidently lost sight of the French ship, slightly to his rear, for a second.

Rod, his eyes on the tail of the English ship, saw the plane dive suddenly, shoot off at a crazy angle to the outside of the tower, and then level off close to the ground. Duke yelled wildly into the phone, but his words were not distinguishable. The American pilot put the plane over in a bank, but instantly straightened it out.

The Frenchman had crashed into the tower!

His plane, splintered and ripped from wing to wing, was slowly dropping to earth beside the tall mass of black steel! A red flame shot from the gasoline tank as Rod got control of himself and banked the *Liberty 12* back toward the course. He had swung more than a quarter of a mile on the outside of the steel structure!

"Steady, Rod, steady!" Duke's voice came to him now. The mechanician evidently thought that he had lost his nerve at sight of the crash.

"What's behind?" the pilot asked quickly.

"The Canadian's a hundred yards or so back," Duke replied, after a brief silence. "The Jap's about two hundred yards behind him."

"All right." Rod peered ahead as he pulled the stick slowly back toward his stomach and got the *Liberty 12* in a slight climbing angle. The English ship was not more than three hundred yards in the lead, and the American pilot opened up the throttle another notch.

"Rotten luck for Le Fabre. He's done." Duke spoke in a grim tone of voice.

"Maybe not," Rod replied. "He was only traveling a hundred and ninety when he hit."

"You've got a wonderful sense of humor," the mechanician shot back, "but he might not have been killed at that."

Rod's hand was trembling on the stick, and he fought desperately for control. The accident had unnerved him, there was no question about that. A crash at that speed into solid steel—and then that red bit of flame! Burning up as you fell toward the earth in a twisted wreck of wires and struts!

He shook his head from side to side, as if to rid himself of the vision in his eyes. Another of the towers was already sweeping toward the plane. Another of the turns was at hand.

"What's the trouble?" Duke had seen him move his head from side to side.

"Nothing," the pilot answered. The mass of steel swept toward them. A bank, vertical and sickening—the plane revolving about the tower as though it were fixed on a piece of string. Level again, level and

streaking into the first stretch of the sixth lap.

But the turn had not been a good one; they had swung out too far. Ranesdale had not made a much better one, but he had gained some air on the American ship.

"One hundred and ninety-three!" Duke sang out cheerfully through the phone.

"Best yet," the pilot replied, checking the mechanician by a quick glance at his own air-speed meter. "And the wind's on our nose in this stretch."

"We'll do two hundred before we finish," Duke called, a few seconds later.

"It begins to look as though we might *have* to fly that fast," Rod returned, his eyes on the English plane. "He's flying a nice race, that Ranesdale, and unless his motor goes bad we'll have to be right on his tail in order to get a crack at the cup."

The hill with its arrow of white was beneath them. Another of the towers, the first of the sixth lap, was hurtling to meet the American plane. And even as Rod banked the ship over for the turn, he thought of the sight his eyes would not be able to avoid as they passed the third structure.

But he got the *Liberty 12* around in good shape, and held his distance behind Ranesdale. More than ten laps to go! Already he was beginning to feel the terrific nervous strain.

"The Jap's coming up on the Canadian," Duke announced. "He gained a lot on that last tower turn."

"Kyoti can fly," Rod replied. "If he doesn't finish one-two-three in this race I'll eat my goggles."

"He should, if his plane holds out," Duke agreed. "He's been flying around these towers in practice banking for the last two weeks—ever since they were erected."

"How far back is he now?" the pilot asked.

"About even with Dallenger—that's the name of the Canadian entrant, isn't it?"

" 'Speed' Dallenger, they call him," Rod answered. "You sing out if that Jap gets too near. I may have to cut the corners a little closer. There's only one more notch on the throttle—and I'm saving that speed in case we need it."

The motor of the *Liberty 12* was roaring in fine voice. The earth streaked behind in a blur of green, brown, and black. Persons staring up at the racers were little dots, made so, not by the altitude, but by the speed. The second of the towers flashed into sight, distinguished itself for a moment, as they banked around it, and then vanished behind.

"Only fair, Rod—only fair." Duke spoke in a low voice. He knew that the pilot could not see how much the Jap had gained on the last turn. And the Canadian, too. But Kyoti was the one Duke Young feared now—Kyoti and the Englishman.

And Rodney Lane, his hands gripping tightly the yellow stick which rose between his knees, his feet pressed tightly against the rudder control, knew that the thought of the wreck at the base of the next tower was the thing that had caused him to slip at the turn.

"The Jap is still gaining," Duke muttered, after a short silence. "He made a nice swing that last time."

"How far back is he?" the pilot asked.

"About a hundred yards," the mechanician replied shortly, and Rod started at the distance. A hundred yards! That was practically nothing in this race. Practically nothing.

"And the Canadian?" He spoke grimly.

"Two hundred or so," Duke answered. "He made a bad turn."

Level fields were below them now; at intervals a house flashed by. It did not seem possible that they were covering four miles between each one of the sky-stabbing

steel markers. Four miles in less than a minute and a half! Speed—speed for the International Cup! Speed for world supremacy in the air!

And then the third tower, the fatal third tower, loomed into sight. And Duke seemed to sense the fact that Rodney hated the ordeal of taking the ship around this marker—the skeleton of the Frenchman's plane at its base.

"Take it easy, Rod old boy," he bawled into the phone. "Swing out a bit first, and we won't have as stiff a turn. Lots of air behind."

"Too much in front," the pilot muttered. One glance at the base of the tower was enough. A crowd had gathered about the wreck of the French plane; smoke twisted up in the still air. There was little chance that Le Fabre had gotten out alive.

Rod swung the ship to the starboard. He was trembling again, and he banked too soon. Leveling off, he felt a brief panic seize him, but fought it down. Again he got the plane into a bank. But it was an effort for him to pull her over steeply. They skidded, and when he finally got her on the course and leveled off again, the Jap plane had her nose even with the *Liberty*.

"Tough luck, Rod—but you'll be all right on the next lap. That first one was a hard pull. The Canadian lost a lot of air. He's a bad last. Almost a half mile back."

Rodney swore beneath his breath. "That's no consolation," he muttered. "The Jap's up here with us."

"What did Ranesdale do?" the mechanician asked.

"Gained," Rod replied glumly. "Gained—but not much. I tell you this Jap worries me more than Ranesdale. He's flying *some* race!"

"He's got to," Duke returned evenly, "in order to lick us!"

The Canadian plane dropped to the field when she finished her eleventh lap. It looked as though motor trouble had caused it, though Duke was inclined to blame the wreck of the Frenchman's ship.

Kyoti had dropped back to third position—a close third, too close to suit Rod. The American pilot knew that the Jap had dropped back because he wanted to. He refused the strain of flying wing to wing with the American pilot, but he clung right on the *Liberty's* tail.

Three planes in the race! And they were flying to a battling finish. Every turn at a tower counted for much now, every foot of air counted.

"Feel all right?" The mechanician's voice sounded far away to Rodney. He was weakening under the strain. Each time that he flew the American plane around the third tower in the course his eyes went to the wreck at its base. No matter how hard he tried, it was impossible to keep from glancing at the remains of the Frenchman's ship.

"I feel pretty good," he replied, but he knew that Duke was aware of the fact that he was feeling the strain.

They roared toward the first tower of the thirteenth lap, and the mechanician attempted to cheer the pilot with a joke.

"The lucky thirteenth," he shouted through the phone, "here's where we pass the Englishman and take the lead."

And Rod grinned to himself. He felt a bit better, at that. Only three more laps to go! Only three more times would he be forced to make vertical banks over the wreck of Le Fabre's plane.

But it was just as hard on the two other pilots as it was on himself, he knew. Ranesdale had been a friend of the French flyer. Had come over from the Continent on the same boat with him. He, too, must be under a terrible strain.

Mechanically the American pilot kicked the rudder, jerked over the stick. They

rounded the tower nicely, and Rod decided that now was the time he should make his bid for the lead.

"I'm giving her the last notch," he called through the phone mouthpiece. "We'll fight them out to the finish now!"

"Fine!" There was a note of excitement in Duke's voice. "Let's go, old timer!"

They gained slowly on the English plane, but the mechanician reported that Kyoti was hanging close on their tail. As they rounded the third tower of the lap Rod forced his eyes from the ground, banked over sharply and made a fine turn.

The roar of the motor was deafening in the pilot's ears. It was difficult now to hear Duke's voice, and he was forced to ask the mechanician to yell into the phone.

"My ears are going back on me," he bawled back to Duke, as the *Liberty 12* swept into the fourteenth lap.

"Never mind your ears—as long as the old eyes hold out we're all right," the man in the rear cockpit returned.

The American plane was vibrating severely, and even as Rod glanced at the air-speed meter, he heard Duke's voice faintly.

"One hundred and ninety-eight!" the mechanician called. "That's the best yet. And we're gaining a little on the Jap."

On the three ships roared. Towers flashed and vanished. Houses, fields, roads streaked behind. Time and time again the American pilot was forced to wipe the oil from his goggles.

As they sped over the landing field he saw a huge strip of white cloth spread in a figure fifteen. Two laps to go! Two laps—and they were still in second place!

"Cut in at the towers," Duke was begging. "Make the turns as tight as you can, old man."

They banked around the first tower of the fifteenth lap, and the mechanician uttered a cry of exultation as Rod swung the plane to the inside of the English plane. Ranesdale had made a bad turn, and the two ships roared down the strench toward the second tower nose to nose.

"Now we're flying him!" Duke shouted. "Hold her up here, Rod."

But the American pilot knew that unless he could get the ship ahead of Ranesdale before they reached the second tower there would be danger of a crash. The Englishman would not give ground. He had showed that once before, and Le Fabre, who had been flying on the inside, had crashed to earth.

"A hundred and ninety-nine." Duke's voice came to Rod as though from some great distance. His eyes were staring wildly, straining to pick up the exact, short airline to the mass of steel approaching. Lips, caked with oil, tried to shout into the phone, but failed. His hand gripped the stick firmly.

On they roared—the two leaders, with the Jap right on their tails. And then the black tower was upon them.

One glance showed Rod that there was but ten or twelve feet of air between the wings of the two planes. Over he flung the *Liberty 12*—over in a stiff, vertical bank. And as the starboard wing tipped in a line to the sky, he heard Duke's agonized shout in his ears.

"Down—nose her down, Rod!"

Working desperately, he got the controls in neutral and shoved the stick forward. The *Liberty* plunged downward, but he pulled her level almost immediately. Eyes straining through the goggles, he saw that they were on the course, not more than fifty feet above the ground.

"Steady!" Once again Duke's voice reached him, though he knew that the mechanician must be screaming into the phone mouthpiece.

Rod wanted to ask what had happened—where the English plane was, but

his voice had momentarily failed him.

"Ranesdale nearly smashed us," he heard the mechanician explaining. "He only missed us by feet. Lost control while he was banking. He went down in a spin but got out of it just off the ground."

They were approaching the third tower. Already Rod could see the outline of the wreck at its base. He tried to get a grip on himself, but found it a difficult task.

"The Jap's about fifty yards back," Duke was shouting. "Ranesdale's coming along about a mile behind. He got out of the spin headed the wrong way, I guess. Looks as though he's done."

Again the bank—wing to sky, wing to ground. It seemed to Rod as though he were flying the *Liberty* mechanically. His goggles were clouded with oil almost continually now, every minute or so he was forced to wipe them off.

"There's only the two of us now," the mechanician was encouraging. "Keep the old girl up ahead, old man."

The two planes swept toward the fourth tower—and the beginning of the last lap. The last lap! Rod wondered if he could stand the strain long enough to stick it out. Duke could fly the plane, but he could never handle it at the towers.

"The Jap's gaining. Are we wide open?"

"Wide open," the pilot shouted back through the phone, but he was not sure that Duke could hear him. He could not hear the sound of his own voice. Only the effort, and the fact that his lips parted seemed to tell him that he had spoken.

The motor sounded in his ears like one continuous roar. He would never be able to distinguish the sound, if it went suddenly bad. But his eyes would tell. His eyes and hand, and the feet on the rudder stick, were keeping the *Liberty 12* in the race.

The starting field streamed below them, and Rod picked up the word "LAST" formed in white cloth strips. They tilted around the first of the towers in the final lap, and the pilot leveled the ship off for the four-mile stretch to the second marker.

"Two hundred and one!" Duke shouted, his voice sounding weaker than ever before. "Hold her nose up, Rod."

The glass on the dial board showed the American pilot that they were flying level. The chances were, he realized, that the wind had shifted, and that they were benefiting to the extent of a few miles an hour, because it was on their tail.

At the second tower he banked too late, and the ship made a wide turn. When Rod glanced to the port side he saw the nose of the Japanese entry even with his seat in the front cockpit! Only one more bank was to be made—and upon it would hang the chances of victory.

"He's up even," Duke half sobbed into the phone. "Don't give him too much room at the next tower, Rod. If we swing out too far we're done."

Rod nodded his head. He raised his left hand, numb from its position against the vibrating side of the fuselage, and wiped his goggles clear for the last time. Not more than twenty feet separated the two ships as they approached the final turn, the deciding point of the race!

Wing up, wing down. Both ships swung around in vertical banks. And then the thing occurred.

The Jap came out of the bank sooner than Rod had expected. With Duke's yell the American pilot had the controls of the *Liberty* in neutral, but too late to avoid the crash.

There was a spasmodic jerking of the American plane, and Rod nosed her down instantly. The ship suddenly shot off to the starboard, and only by holding the stick far to the left was the American pilot able to get it level.

"Hold her up!" Duke was screaming.

"We ripped a wing but the Jap's still flying the course—above us."

The plane was vibrating terrifically—the stick jerking from side to side in Rod's hand. He clutched it with his left hand, and steadied the action somewhat, but the plane was rocking violently from side to side.

"Kyoti's got a small lead. His starboard wing's badly damaged. Keep her on the course, Rod—we've got a chance yet."

Fighting the jerking stick, caused, Rod knew, by the shattered wing tip, he held the plane on the course. They were only a hundred feet above the ground, and the action of the ship was becoming more violent each second.

"She's losing altitude!" Duke shouted excitedly. "The Jap's losing altitude! She's on our starboard, dropping down. We're gaining, Rod—we're gaining!"

With all the strength remaining within him Rod was fighting the plunges of the *Liberty*. Would the wing hold out until they finished the race? His eyes were commencing to burn now, and he could scarcely see the air-speed meter. But Duke's voice reassured him.

"Hold her up, old man. Only a mile more! We're doing a hundred and seventy-five. Hold her up, old man!"

They roared onward. Rod's head was swaying from side to side, as he kept the ship level with the horizon. And then, suddenly and unexpectedly, he saw the towers—the black one, and the red one far to the starboard, loom into sight.

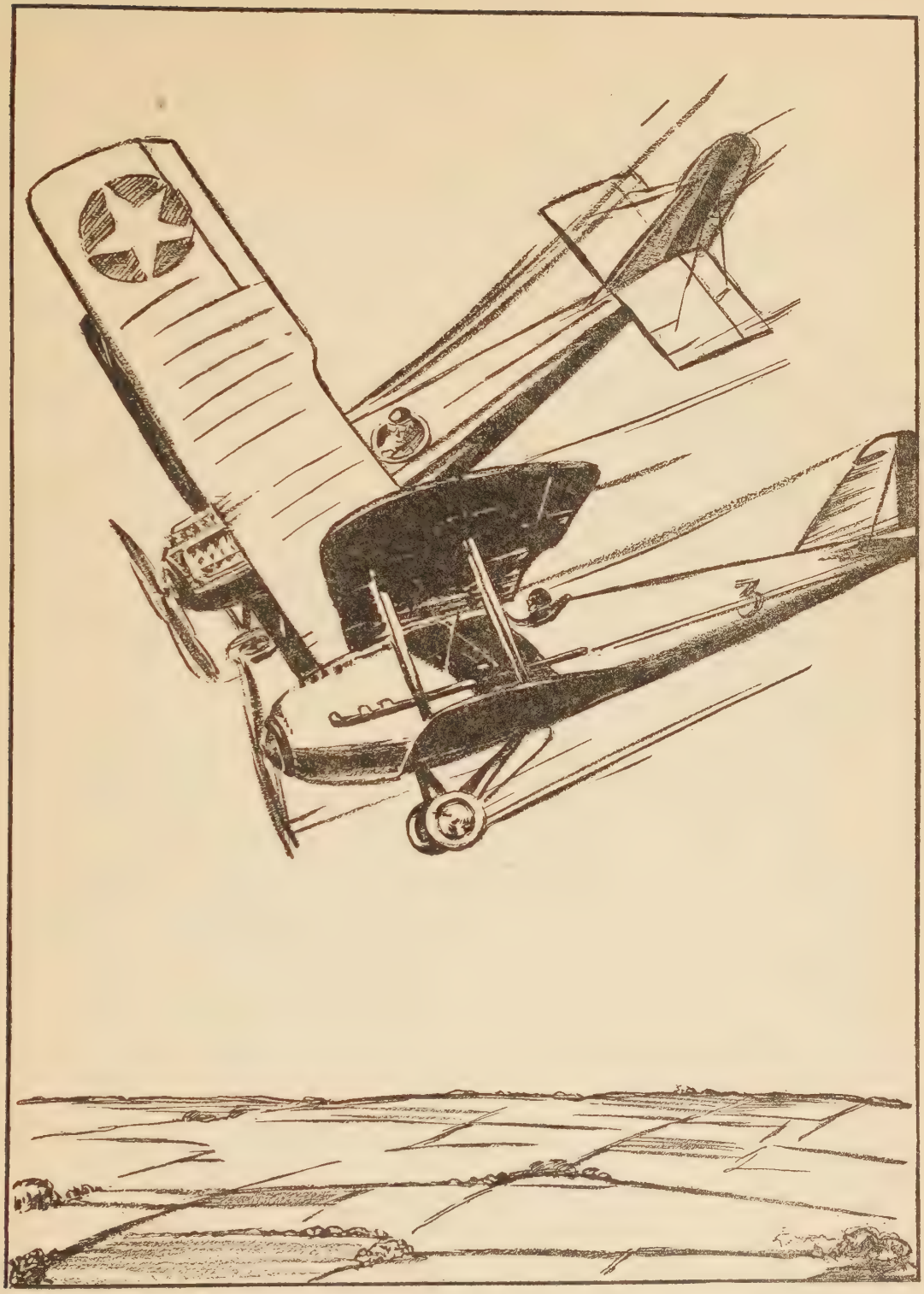
"Hold her!" Duke was screaming. "We're right behind the Jap—we're close, Rod."

Something flashed by on the starboard. A second later the black shape of the tower streaked behind on the port. A field, level and of good length, was below.

"Cut her!" the mechanician shouted. "We win, old man—we win!"

With his last strength Rod pulled back the throttle with his left hand. Holding the stick back he let the plane drop slowly to the field. After what seemed an eternity of time, they struck the ground, bumped along and came slowly to a complete stop. Rod slumped down in his seat. He was shaking all over. But in his ears rang, above the still-present throb of a motor that was now silent, the last words of Duke Young—"we win, old man, we win!" They had won the International!

"Some *race,*" he muttered to himself happily, "if you like flying!"



As the starboard wing tipped in a line to the sky he heard Duke's agonized shout in his ears, "Down, nose her down!"

In a beautiful tackle Dan hurled himself forward a good ten feet, straight for the knees of the gunman.

Keep Your Nerve and Flying Speed

By Thomson Burtis

Illustrated by C. A. Federer

THE greatest flying field in the world lay smiling beneath the warm morning sun—a Texan sun in the summer time is right on the job supplying heat even at seven A. M. The mile-long row of shining white hangars which bounded the northern edge of the field was paralleled by a long line of airplanes, most of them roaring away on the warm-up. A mile away, and some of them a mile high, the ships of the acrobatic stage were already looping and spinning as advanced cadets got their first taste of aërial acrobatics.

On the bench set aside for beginners twelve young men in khaki, helmets and goggles in their hands, were waiting for the appearance of their instructors. They were improving the time by talking about flying, which is the only topic of importance to flying cadets.

Dan Hammond, at one end of the bench, was not taking part in the discussion. He skimmed the headlines of the San Antonio *Express* idly, scarcely conscious of what he read. San Antonio was having a crime wave, too, it seemed—"Fourth Holdup by Masked Man on the Rio Road—" that was the road which separated Field One and Field Two on its way into San Antonio. He skimmed the article hastily, conscious of the nervous strain of waiting.

"I hope we don't all have to wait for Hammond to solo—we'll be on the dual-control stage until we're tripping over our own whiskers," said a heavy, rasping voice.

Dan looked up, trying to hide the effect of the words behind a grin.

"You don't need to worry, Sam," he said to the heavy, dark-faced man who had made the remark. "You'll be tripping over your whiskers to-morrow if you don't shave."

This reference to the frowzy-looking Sam Gaspell got a laugh, and a remarkably tall and remarkably thin chap cut in: "Give Hammond time; he's young yet!"

The conversation veered to the wreck of yesterday, when Barry Young and Freer, his instructor, had both been killed. Under cover of the animated talk Dan leaned back and gazed silently across the mile-square expanse of Donovan Field. That gibe about his youth did not matter—he was well aware that, being only nineteen, he was three years younger than the youngest of his comrades. But Sam Gaspell's taunt—that was different. Why was it that every other man in the bunch had soloed—was flying alone, and he could not? For hours of flying he had listened to his instructor's blistering directions, tried his darnest. The ship *would* bounce when he landed it, and sometimes when the ground was rushing up to meet him he did not level out in time, and Lieutenant Gray, his instructor, would grab at the stick and just save them. The Lieutenant would have his goggles pushed up before the ship stopped rolling over the ground. When it had stopped he would turn and start to

talk. And when Gray talked he talked. He could be sarcastic, grim, disgusted, depressed, discouraged, and wrathful all at one time, and express those various sentiments in three or four choice words.

"Hammond!"

Dan jumped as though he had been shot. As he automatically came to his feet he met the cool gray eyes of the broad-shouldered Gray. There was a glint of amusement in them as he said "Rest!" and the other cadets resumed their seats.

"Thinking, eh? Well, I hope you've figured out how to make a landing. I'll take you first this morning. Come on—I guess the crate's ready."

Dan walked over toward 32, which was Gray's ship. The Lieutenant was six feet tall—an inch taller than Dan himself. In his trim boots and breeches and close-fitting leather helmet he seem the incarnation of cool capability as he lounged around the ship, inspecting it briefly. Dan, as he climbed into the rear cockpit and adjusted his helmet and goggles, wondered despairingly whether he could ever fly like Gray—fly at all, for that matter.

Gray stepped up on the wing step and coiled his long length into the front cockpit. There was a mechanic at the end of each wing, and another ready at the propeller. The instructor turned and his gray eyes seemed to be boring into Dan's steady blue ones.

"Start it!" he yelled, above the now deafening noise of many hundred-and-sixty-horsepower motors roaring along wide open on the final test before going up. The other instructors with their cadets were coming to the line now, ready to start the daily grind which was so wonderful to the cadets and so monotonous to the tanned young veterans of the air who taught them.

Dan leaned over the side of the cockpit, caught the eye of the mechanic, and yelled:

"Off!"

"Off!" repeated the mechanic, and spun the big six-foot propeller easily.

"Contact!" he shouted.

Dan pulled the control stick back as far as it would go, and snapped on the magneto switch.

"Contact!" he repeated as his hand found the throttle.

The mechanic set himself and then pulled the propeller through as he leaped aside. Dan jazzed the throttle, and the motor caught. It idled along softly, the rhythmical firing of the cylinders barely audible. He listened closely a minute, until he was sure there was no miss in the motor. His eyes swept the instrument board in front of him, studying the air-pressure, which was three pounds; the oil-pressure gauge, and the tachometer, which told the speed of the motor. Then he nodded to the mechanics on the wings, who proceeded to crawl beneath the ship and take the wheelblocks away.

Gray looked around to make sure there were no other ships in the way, and then glanced back again at his student. Dan's sunburnt face was a trifle drawn below the big goggles, and his mouth was set in a thin line. His jaw was set resolutely, and he returned Gray's look with eyes that were blazing witih determination. The instructor put his hand to his mouth and yelled:

"Take 'er off—and don't try too hard. Loosen up! Keep your nerve—and flying speed!"

It was the slogan of the flyer—the battle cry of the flying game. Dan nodded. He felt as though this would be his last chance to make good.

Gray was pointing out over the field. With his left hand Dan pushed the throttle forward slowly. The ship started trundling over the ground. He forced himself to feed the throttle gradually—that was one of Gray's strictest rules. Finally it was wide open, and he pressed forward on

the stick. As the tail came off the ground and the plane picked up speed the nose dipped perilously, but he caught it in time. Gray, slumped down in his seat, had not moved during that instant when it seemed that the now invisible propeller would shatter itself on the ground.

In a moment they were in the air. Dan focused his eyes on the top of the motor, keeping it just above the horizon line. That meant a normal climbing angle. It was like walking a tight rope to keep the ship level. It tilted from side to side and up and down in the air currents, and the control stick was constantly moving under his hand as he compensated for the bumps. With a thrill of satisfaction he was aware that he was not "over-controlling."

The ship was four hundred feet high when it was over the mesquite at the edge of the field, and he banked carefully to the right. The stick over a trifle to the right, and right rudder—and there was no wind perceptible on either cheek, either! He had not slipped or skidded.

He straightened out and flew up the edge of the field, until he was nearing the line of hangars. There were ships scooting over the ground like bugs, now, but he had no time for them. He did glance around to see if there were any planes near him in the air, but otherwise his world was one of deafening noise, concentrated in the frail linen-and-wood craft he was in. He forgot even the relaxed and seemingly disinterested figure in the front seat as he used every faculty he had in the endeavor to keep that ship level, and really fly it.

Without waiting for Gray's outflung arm as a cue he banked again until he was flying down the line of hangars. He saw Gray nod his approbation—a nod from Gray was worth a ten-minutes' speech from any one else.

Now for the landing. Hammond's grim face whitened a trifle as the great test loomed before him. The wind was from the south—he must make a half turn in a spiral to get into it, and then the landing itself.

He glanced down at the great expanse of smoothly-mowed grass, and his left hand found the throttle. He pulled it back, and suddenly the earth-shaking roar died away and the shrill of the wires took its place. He shoved the stick forward and to the right and his right foot jammed forward against the rudder.

Instantly the ship went into a dive—too steep—and tilted up, right wing down. He pulled up a bit, and then straightened as the nose pointed directly for the field. The wires whined and sang with the speed, and the ground rushed up to meet them. Suddenly he saw Gray throw his hands in the air, high above his head. The ship was Dan's—there would be no expert hand on the stick to help him.

For a moment he froze to the stick. He seemed to be in a nightmare of wild speed, with destruction awaiting them the next second. He was dimly aware of blurred ground, screaming wires, trembling ship—and then of two steady arms still in the air before him.

It had been but an instant, and suddenly his head cleared. He pulled back on the stick, but too much. The ship came level ten feet above the ground, and shot along over the grass with speed that did not seem to diminish. He saw Gray's hands tapping the cowling, and eased forward, letting the ship come down gradually. There was a feeling of security, now, and he looked down at the ground three feet beneath him with an almost professional eye. Gray's hands were still in sight—it was to be Dan's landing, and no one else's.

He was taut again as he waited for that infinitesimal moment of time when the ship would seem to stop suddenly, hovering before settling to earth. It was the "feel of

the ship" that he somehow did not have.

Then, for the first time, it came. The speed, which had been gradually slackening, seemed to drop suddenly. He yanked the stick backward. The ship dropped and hit the ground too hard, but it did not bounce. He had got the tail down for a three-point landing, and after all is said and done that is one of the greatest of flying achievements.

Gray turned around as the ship trundled over the ground, gradually stopping as the tailskid bit into the earth. He pushed up his goggles and there was the ghost of a smile on his face as he saw the wide grin which embellished the countenance of Cadet Dan Hammond.

"You showed signs of almost human intelligence that round," remarked the instructor. "If you keep on practising a few years I shouldn't wonder but what you might be able to go up a thousand feet without diving eleven hundred. Now we'll go up and get some tail spins. I'll fly her a while—we haven't much time."

As the ship roared away over the field and took the air Dan leaned back with a blissful grin still splitting the expanse of brown skin below his huge round goggles. Just before a man soloed he was taught how to come out of a tailspin. And better than the prospect of soloing, even, was the realization deep down in his heart that he *could* fly. The moment of panic had been conquered, and at last he had the feel of the ship.

"Speaking of nerve, I wonder if Lieutenant Gray knew what he was doing when he kept his hands in the air?" he mused happily as he gazed down at the receding earth. "Come to think of it, he just *made* me fly her—why, that was what he was up to all the time!"

This was food for thought, and from it was born a new admiration for the tall, sardonic, exacting young man in the front seat who had calmly risked his life to make him, Dan, a flyer. And how he could fly! The ship swept along smoothly, angled steeply upward. The altimeter crawled to three thousand, then four thousand feet. The field was six or seven miles behind them now, and was beginning to look small, bounded by a long line of white doll houses and occupied by a swarm of tiny insects which moved along over it.

Other tiny things, like birds, were in the air. The earth seemed like painted canvas, with roads mere strips of white ribbon and fields so small that it seemed one could step across them. A car looked irresistibly like a cockroach walking on a white-painted line.

Five thousand feet now—a mile high. Beneath them there was nothing but mesquite and some small clearings. One house—a small shack in the midst of three cotton fields and one large mowed stubble field. He saw a horse and rider making their way toward the shack, along the edge of the stubble field. The rider dismounted and disappeared, like an ant under a small stone.

Suddenly the vast drum of the motor ceased, and he looked up quickly. Gray had the ship in a gradual dive to keep flying speed.

"I'll throw her into one and take her out!" he yelled. "Watch."

Brought back to his work with a snap, Dan gripped the side of the cockpit and watched. Gray cut the motor and brought the nose in the air. For an instant the ship hung there, and then dropped, nose downward, in a sickening swoop. The next instant it was whirling like some tremendous top, screwing earthward with blinding speed.

Three, four turns, and then opposite rudder and the stick pushed forward all the way. That terrible spinning stopped and merged into a nose dive. Back came

the stick, easily, and the nose came up. In a moment, they were flying level again. But a few months before a tail spin—inevitable result of loss of flying speed—had been considered sure death. Dan took a long breath, and looked down at the heaving earth to get over his dizziness.

Suddenly he stiffened, and forgot the sick feeling at the pit of his stomach. He was unaware of the fact that a moment before he had been dizzy and weak, as he reached forward and grasped Gray by the shoulder. The flyer turned, and Dan, his blue eyes blazing with excitement behind his goggles, pointed downward. Gray craned his neck over the side, and banked the ship to see better.

A tower of thin gray smoke, originating apparently at the eastern wall of the little shack, was rising lazily in the air, drifting northwest in the Gulf breeze.

The equable instructor, whom it seemed impossible to thrill, nodded. In a flash the nose went high in the air and the motor died away. It was a left-hand spin this time, and the ship cork-screwed downward at a rate that taxed the altimeter to keep up with it. Again the earth spun around drunkenly, and the universe was a screaming chaos. Four turns, and the ship came level, only to topple off the other way. Two thousand feet—a thousand. Again the ship righted itself and edged into a tight spiral, which is really but a controlled, shallow spin.

The flames could be seen licking the sidewall, now, and Dan could see the riderless horse, still tied to a tree. It was hard to focus his eyes for a while—they turned into acrobats and the earth was like a giant merry-go-round that was gradually slowing.

Gray was looking over the ground carefully as they dropped to five hundred feet. Dan was watching for the man he had seen enter the house. Why was there no sign of life below where the flames were rising?

Gray circled the stubble-field which looked plenty smooth enough for a landing, and then cut the motor. He dived until he was three hundred feet high, well north of the stubble-field and the burning house.

He headed for the fence which separated the field from the adjoining tract of cotton and went into a steep dive. A hundred feet back of it the plane tilted, and with top rudder the flyer sent it downward in a side-slip that killed speed and altitude at the same time. With a skidding swoop that tore the breath from Dan's nostrils the ship righted and skimmed the fence, going barely fast enough to stay in the air. It dropped to the ground within fifty feet of the fence, without a jar.

"Speaking of flying—" thought Dan, and then forgot it as he saw a man appear in the doorway of the house, and then disappear.

"Thought we might as well see what the lay of the land is," yelled Gray as he loosened his belt. "Come on, Hammond."

Dan was out of the ship just behind the flyer and followed him with long strides as he ran toward the house. The roof was smoldering now, and the smoke cloud was thicker, although the fire had not yet gotten a good hold on the structure. They were half-way between the tethered horse and the house.

Suddenly a man popped out of the door, across the tiny veranda, and started running down the vaguely-defined wagon track on the edge of the field, toward the horse. Under one arm was a small box.

"Let's take a peek at that hombre," suggested Gray, showing neither breathlessness nor particular excitement.

"He—he doesn't act very—natural!" panted Dan.

They altered their course to intercept the man, who was bellowing something at them. A holster flapped at his side as he ran with the clumsy gait of a man who seldom used any legs other than those belonging to a horse.

They turned still more, until they were running straight for the horse. Fifty yards away from the plunging, frightened pony, Dan saw the man shift the box under his left arm and jerk at the gun in his holster.

"Git back, I tell yuh, or——"

Gray's answer was to increase his speed.

"He—won't dare shoot——"

But he was wrong. Came a spurt of flame and the whine of a bullet. The man was but twenty yards from his horse, now, but his running had disturbed his aim. Suddenly he stopped and whirled toward them.

Dan was unconscious of danger as his long legs were taxed to keep up with the flying Gray, whose dark face was actually smiling below cold gray eyes. A crack from the pistol, and the flyer fell forward, twisting slightly until he hit on his side. The bullet had spun him around.

The heavy-set, sombreroed fugitive turned and bounded toward his horse, satisfied that he had stopped pursuit for the moment. Dan kept on, hardly realizing what had happened. The horseman swept the hanging reins into his hand, and dropped the box as he turned again.

"I told yuh t' stop!" he snarled and threw down his gun.

Automatically Dan did the thing that saved his life. In a beautiful tackle he hurled himself forward a good ten feet, straight for the knees of the gunman. Quick, searing pain burnt the side of his head as he hurtled through the air.

One broad shoulder hit the knees of the outlaw solidly, and the impact threw him. The horse reared over the two struggling bodies, and his hoofs came down within inches of Dan's head. Then the frightened animal wheeled and galloped away.

The gun had been knocked from the fugitive's hand in the shock of the tackle, and the short, grim struggle was an even one. Dan was half blinded by blood as he strove to get a decisive hold on the kicking, clawing body of his foe. He was conscious of a broad, dark, evil face—and of great strength in every muscle of his enemy's body. The man struck out with his fists, but had no play for his arms, as Dan stayed close, his arms locked around his heavy antagonist in an endeavor to get him on his back. Clouds of dust obscured the battle, and the contestants were choked and breathless.

Dan felt cruel fingers at his throat as the outlaw finally heaved himself on top. The cadet had one knee half doubled, and with a last effort he jammed it upward still further. His breath was coming in gasps as he relaxed for an instant and then thrust his knee outward with all his strength. The body of his antagonist was lifted sideward, and with an effort that took every remaining atom of strength in his body Dan broke loose. His eye caught the revolver, and he hurled himself toward it. His hand found it as the outlaw was scrambling to his feet.

"Don't move!" he yelled as the gun came up.

For a second the man seemed to hesitate, but the ready weapon looked to be for strictly business purposes in the hands of the bloody, dishevelled Hammond. His helmet had been torn off in the struggle, and his khaki shirt was in ribbons. His hair was in wild disarray, and one side of his face was covered with blood. The bullet had made an even crease along the side of his head, just above the ear.

"Bring him—over here and—and

try to take a look inside the house."

It was Gray. Very pale, and swaying slightly, he was standing fifteen feet away, and even as he spoke sank to the ground. His clothing, on the right side, was soaked with blood.

"I—I can't walk but I can hold him with that gun. There may be somebody—in—in the house," Gray said. his lips curved in a crooked smile.

"Is there anybody in there?" demanded Hammond of his sullen captive.

The man's little eyes surrounded by puffs of fat, darted around as though seeking some wav of escape. He licked his lips.

"I dunno——"

"You're a liar!" grated Dan, swept with the horror which very possibly would await him in the smoking house. "Here, Lieutenant!"

Gray took the gun and Dan forced his long legs into doing their utmost. His breath was coming in gasps, but he did not shorten his stride. The roof of the house was blazing slowly, but had not fallen in yet. Dan was as positive as though he had already been in the house that some helpless man would be there, although for the moment he could not conceive of anv reason for so monstrous a thing.

He bounded across the tiny porch and into the thick smoke which poured from the doorway. His tortured lungs sucked in the acrid smoke and he was choking, fighting for breath.

"Anybody here?" he managed to shout, trying to pierce the smoke with his eyes. He wiped the blood away.

"On—on the floor——"

The voice was almost beneath his feet. He sank to his knees, and gratefully breathed the slightly clearer air near the floor. The heat was terrific as he groped about the floor, moving forward until his hands touched the body of a man.

He took a long breath, and got to his feet. Stooping he got his arms underneath the body and lifted it. As he staggered toward the door a section of the east wall crumpled in a crackling mass.

He laid the body down a few feet from the house, and sank down himself, gulping in the sweet, clean air thankfully. The man he had rescued was tightly bound at ankles and wrists. He was gaunt and gray haired, and his lantern-jawed face was lined and weather beaten. For a moment it seemed that he had lost consciousness, but finally the eyes opened just as Dan was picking him up again.

"Where are we goin'?" he asked.

"Over there—we got the robber, and the fellow with me is hurt——"

"Untie me and mebbe I can walk. Bein' left on the floor I got a little good air and I ain't so bad off if I am two years older'n this here Napoleon Boneypart. You got creased, I see."

Dan dropped him thankfully. He had been so anxious to return to the wounded Gray that he had forgotten the fact that the old man was tightly bound. The Texan's puckered eyes rested briefly on the tableau across the field. The outlaw was standing quietly, fifteen feet from the reclining figure of the flyer. The blazing sun flashed from the six-shooter in Gray's hand. The cabin was nothing but a huge bonfire now.

"Didn't see nothin' of a little box, did yuh, son?" he inquired in his soft drawl.

"Uh huh, we got it," grunted Dan as he picked at the knot in the wrist lashings.

"That murderin' coyote got me roped an' hogtied and then set the house on fire tuh make me tell where that there little package was. Finally I had to tell 'im, and jest then you flyin' felluhs come along and scared him off from gettin' me out. Thank yuh for all yuh done, son. There's

right smart o' money in that box, and though I'm old I ain't no hankerin' to roast afore my time. I'd better sell the place, includin' the foundations of a house. Shack ain't much loss, at that. Older'n I am, it was!"

He chuckled, and Dan grinned as his gaze met the squinted, sun-crinkled eyes.

"There you are!" he proclaimed, and helped the Texan to his feet. "Now let's see how Lieutenant Gray is——"

"Shore. We'll take the rope fur our friend the bonfire man."

Gray, patiently holding himself to his task by willpower alone, smiled with pale lips as they came up. Dan held the gun while the rancher tied the captive securely. His eyes narrowed to a line of glinting light as he tightened the lashings around the would-be murderer's wrists.

"If I was ten years younger you wouldn't never see no jail," he said softly. "The last thing you'd remember'd be my bare hands."

He completed his job swiftly, and then he and Dan knelt beside the recumbent Gray. The Texan tore away the clothing gently. It was an ugly wound—the bullet had torn through the flyer's side. With Dan's handkerchief and his shirt for a bandage they staunched the blood.

"You'd better fly him tuh Donovan Field an' a doctor pronto, son," said the rancher.

Dan's startled eyes met those of his chief, Gray's appraising, cool, as always.

"Can you do it, Hammond?"

For a moment the young cadet hesitated.

"Yes, sir."

"I might as well die quick as bleed to death," whispered Gray, the ghost of his old jeering smile touching his lips. "Before I—I faint like some woman—listen. I'm sure of your—nerve, but—for the love of Mike remember—your flying speed!" And then he lost consciousness.

With the aid of the old man he was belted in the front seat of the still idling ship. Dan rescued his helmet and goggles, and climbed in the rear seat.

There was plenty of room for a take-off by turning around and taxiing back a bit—he knew that. And, though he knew that he was ready to solo, the thought of that inert body ahead of him meant a new responsibility, to say nothing of the realization that for the first time in his short flying career there would be no one to help him.

"I'll take care o' this hombre—see you tomorruh at the field," yelled the old rancher in parting, and Dan nodded as he carefully taxied up the field. As he straightened for the take-off he did not dare hesitate, and time was precious. The engine roared wide open as his hand pressed forward on the stick, and the ship started. The boundary fence flashed closer with terrifying speed—this pasture was not Donovan Field by a long shot. With a sob of relief he felt the ship take the air. For a moment of breathless suspense the ship almost stalled as his amateurish hand pulled it too far up, but it picked up speed again as it crossed the fence.

Dan forgot Gray, forgot all that had happened and all that might happen as he hunched over the stick, white with the strain. Not until the altimeter reached five hundred feet did he dare turn northward to Donovan Field. The bank brought the ship around smoothly and with rapidly mounting confidence he headed straight for the field, which was discernible ten miles ahead, the hangars like a broken white fence along its edge.

He felt no mistrust of his own powers as he roared up the line of hangars, picked a free strip of the field, and cut the gun for his landing. He leveled off a bit too high, but eased the ship lower in plenty

of time and landed with one bounce. Gray would have bawled him out—but he had got down safely, and that, for the moment, was the only thing that counted.

As the cadets, instructors and mechanics swarming on the line got a good look at the bloody face, and then took in the significance of the lifeless figure in the front seat, the plane was inundated with a wave of eagerly questioning men. Dan cut the motor and made a quick explanation. One of the ever-ready ambulances drew up alongside in a jiffy, and both Hammond and the unconscious Gray were borne away to the hospital. The doctor threw a cheery assurance from the rear door as they started away.

"Just a loss of blood! Plenty of time to save him—and a bandage for Hammond!"

Dan emerged from the hospital in a half-hour with a bandage girdling his head, and there were happy, satisfied hours to follow. He thoroughly enjoyed his sudden leap from obscurity into fame, but the main thing was his new-born confidence in himself. The climax was capped that evening when the afternoon papers reached the field and he learned that the prisoner he had captured had confessed to four other crimes, including the automobile holdups. They allowed Dan to make a call on Lieutenant Gray that evening and tell him of the new angle to the case. The instructor grinned quizzically, one arm upflung on the pillow.

"Came out fine," he granted. "I'm glad I was unable to realize what was going on during the trip home, though. I'd have died of heart failure, no doubt."

Dan felt thoroughly at home under the well-remembered mockery.

"Yes, sir," he said solemnly.

"You did well, though, Hammond. When I come to the end of this vacation, though, I'm going to start pounding a new slogan into your head—hope it doesn't take as long to get you to carry it out as it did the last one. I'll give you advance warning now. Don't let nerve grow into conceit, or get up too much speed. Pride goeth before a tail spin!"

Dan was a rather unusually level-headed young man, and he had sense enough to realize the truth behind Gray's words as he thought of them after leaving the hospital. He knew that there were dozens of hours of grinding work ahead, and many nerve-racking moments, before he would even be a good imitation of a flyer; and that there were hundreds of hours in the air to be successfully negotiated before he could be a pilot in the sense that Gray was.

"I'm not proud!—but I know I've got it in me now!" he told himself as he entered the barracks. "And it's a peach of a game to beat!"

Wonderful Eyesight and a Kite

By Dan Beard

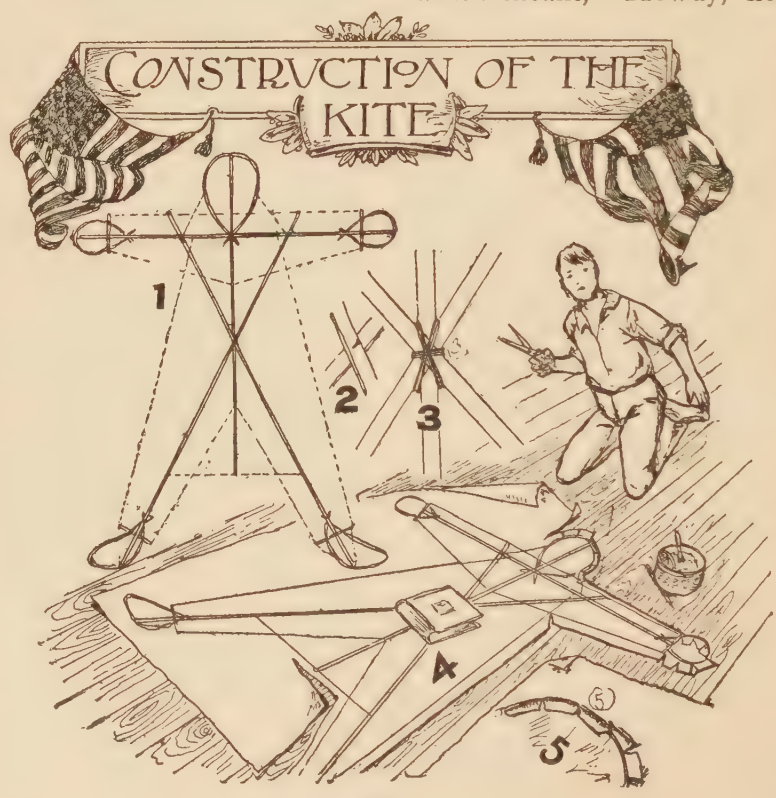
Illustrated by the Author

OLD MOTHER DRYGASH was busy with her household duties about a tumble-down shanty which had been built of bits of dry-goods boxes, driftwood and other cast-off lumber, assembled and erected upon a vacant town lot. The old witch only shook her broom at the freckled-faced boy and his sun-tanned companion as they passed down the road and shouted in unison,

Ole Mother Drygash,
Eats grasshopper hash,

a rhyme which usually produced violent effects upon the old lady, but the day was hot and she was busy.

Aunt Annie and Uncle Cassius were contentedly smoking their corn-cob pipes in the doorway of their little one-story, one-room cottage. Their genial black faces showed every sign of happiness and content, and as the two boys hove in sight and cried, "Howdy, Aunt Annie; Howdy, Uncle Cassius," the old colored people took their pipes from their mouths and smilingly replied "Howdy Sandy, honey; Howdy, Monkey, Honey"; while the little yellow dog sprang from its couch at the old darky's feet and frisked around the two boys, wagging the short stump of his tail in a vigorous gesture sign talk of language which meant, "Howdy, honies, howdy."



The streets were covered with white dust from which dusty grasshoppers sprang as the boys passed and, by some method not yet discovered by modern aviators, held themselves suspended in one spot, neither moving forward nor backward, while their swiftly

moving wings made a dry, rattling noise, in perfect harmony with the hot sun rays and dry dust. The cicadas or "locusts" scraped and grated their dry music from their perch amid the branches of the trees, but these incidents were unnoticed by the boys. To them everything seemed dull and monotonous in the hot village streets. They knew it was different on the levee.

As they came in sight of the beautiful river a great raft consisting of acres and acres of logs, guided by men working long sweeps, was swinging down the broad stream; a cow stood chewing its cud by the door of a shack built on the floating field of logs—near by it a woman was busy over the washtub, a dog lay in a doorway and smoke was coming out of the chimney of the shanty—everything as peaceful and quiet as if the habitation was on dry land.

But the half-paved levee of the water-front was crowded with canvas-covered army wagons drawn by lithe-limbed, patient mules. The animals were driven by cruel, blue-uniformed drivers, who lashed the uncomplaining mules with long blacksnake whips of braided leather; whips which the drivers could snap with a report like that of a pistol, or take a bit of hide or hair off of a mule as the whim struck them. For a while the two boys watched the teamsters quarreling, swearing and crowding as they tried to jockey and bully each other for a place on the roofless front of the steam ferryboat.

The two barefoot boys, Sandy Bar and Monkey Shoals, took up their positions by the squat, unfinished bridge pier and began to bet fabulous sums on the question of the names painted on the wheel-boxes of the river steamers, steamers which were too distant for any human eye to read. Away down the river toward Storrs Township a steamer now appeared from around the bend.

"Can you read that name?" asked Sandy.

"Course I can," replied the other little sinner; the question and answer were both carefully made loud enough to be heard by a third boy, who was approaching. This boy differed from the other two in many respects. In the first place he wore shoes, in the next place he was not in his shirt sleeves, but was arrayed in a blue 'round-about jacket, which in defiance of the hot weather was buttoned up in front with brass buttons, the middle buttons, however, being unfastened so that a handkerchief could be carelessly thrust in the coat and left partly protruding like a ruffle on an old-fashioned shirt. This new boy, the congressman's son, also differed in other respects, but he nevertheless was a real boy and immediately, without a moment's hesitation, offered to bet a billion dollars that neither of the boys could read the name on the wheel-box of the approaching side-wheeler that was puffing up stream with its tall smokestacks belching forth columns of dense black smoke.

"Ah, shucks," said Monkey, "that's easy," and with sportsmanlike promptitude he doubled the bet to two billion dollars and then standing and shading his eyes with his hands he began to spell out the name.

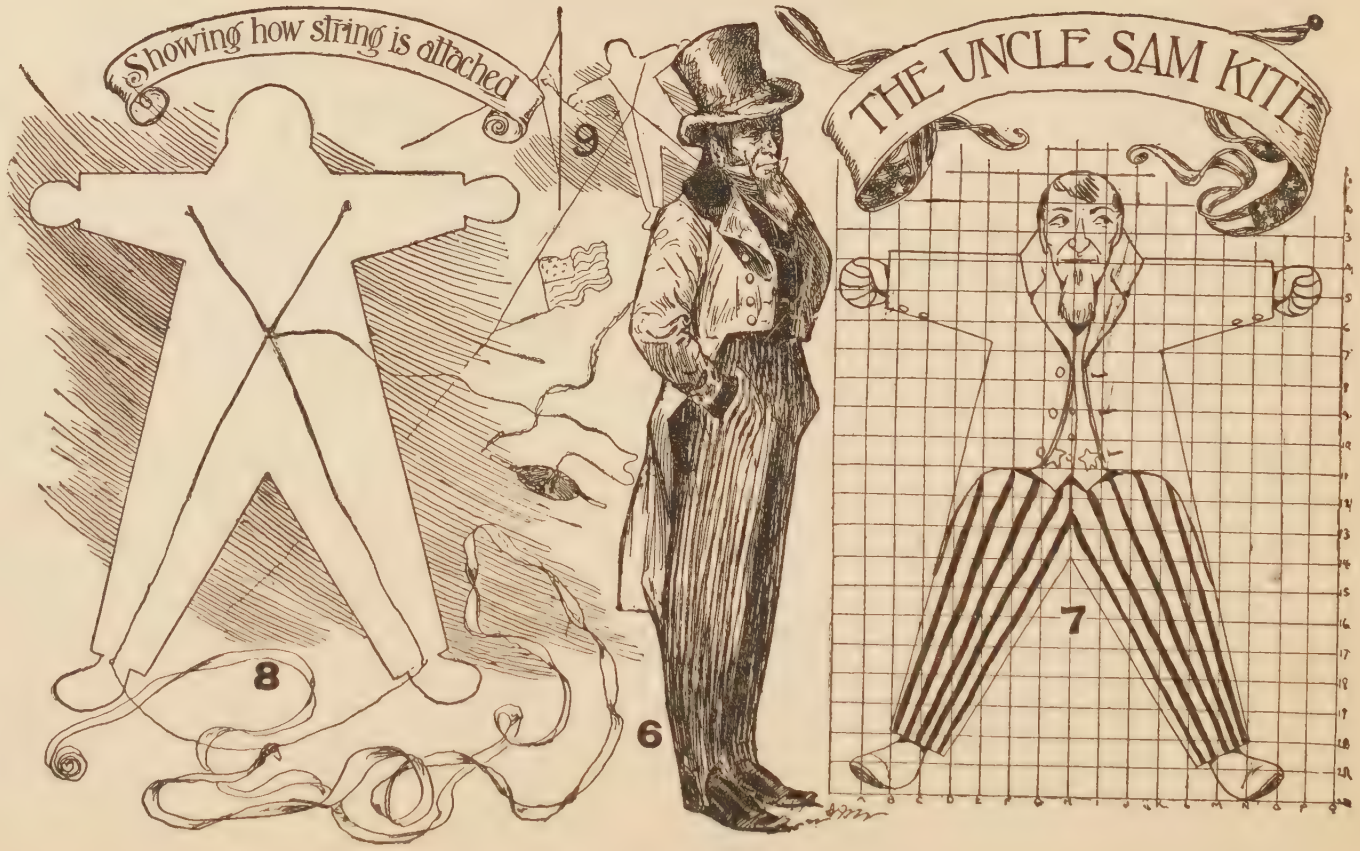
"C-H-A-M-P-I-O-N, *Champion;* N-O-6, Number Six," he read.

"Ah, go 'long, nobody can read the name on yonder boat," declared Lerdum, the congressman's son.

"You're a smart Aleck, Lerdum, just you wait and see!"

Gradually the distant steamer approached until at last even the dull eyes of Lerdum, the congressman's son, could read the big name on the wheel-box, which sure enough was *CHAMPION—NO. SIX.*

"Golly!" said Lerdum with awe in his


Showing how string is attached
9
THE UNCLE SAM KITE
8
6
7

voice and expression, "you-all must have eyes like spy-glasses."

The Kite

Since the glorious fourth of July was almost at hand, Sandy, Monkey, and Lerdum took to the barn and there built an Uncle Sam kite, seven feet tall. It took all their combined strength to fly it. In 1825 all gentlemen wore long-tailed blue coats, fuzzy beaver hats, striped trousers and squared-toed boots, Figure 6. From this costume all pictures of Uncle Sam are modeled to-day.

Figure 1 shows arrangement of kite sticks. Where the sticks cross, fasten them with a pin, clinching it on the opposite side, Figure 2. Bind the joint with stout thread or string, Figure 3.

Of split fishing-pole cane or any sort of thin strips of wood that will bend readily, make the loops for the head, hands, and feet, Figures 1 and 4. The dotted lines show the strings. The double lines show the sticks. After you have strung the frame as in Figures 1 and 4, place the same on the floor over the paper, with a weight at the middle to hold it firm. With scissors, trim off the paper, leaving flaps just wide enough to paste, Figure 4. Where the flap is too long, cut slits so that it can be pasted in parts. Cut slits at all angles, and cut out notches at curves, as in Figure 5. Paint the flaps with paste. Fold them over and press down upon the paper firmly. When the paper is dry, the face, hands, feet and clothes may be outlined upon it, as in Figure 7.

Lay out your paper in squares, making it twenty-one squares high, and seventeen squares wide. These squares may be of any size. They are supposed to be three inches in the diagram. Then draw the lines of face and clothes with black paint, according to squares.

When you wish to fly the kite, attach the breast and tail-bands, Figure 8. The cross strings should be of equal lengths and loose enough, Figure 9, to allow freedom of balance. Attach kite string to cross lines and slide the knot up or down until the kite flies at the proper angle to produce the best results. Attach the tail to the tail-band and by experiment find out how much tail is necessary.

Recite, "We hold these truths to be self-evident, that all men are created equal and endowed by their creator with certain inalienable rights, among which are life, liberty, and the pursuit of happiness." Then Uncle Sam will fly with glee and soaring up, up, into the sky will attract great attention and applause as he moves majestically through the air.

Through the Storm

By F. A. Collins

"ALL aloft."

The last air passengers hurried up the gangway. Already the crew of the great transatlantic air liner was at its station. The domelike top of the airplane's cabin with its broad windows of isinglass slid smoothly into place.

"All clear."

"Aye, aye, sir."

The crowd which always collects to see the start of the Atlantic flight was kept well clear of the airplane. Everyone called a greeting, hats and handkerchiefs were waved frantically on every side.

Suddenly the roar of the four great propellers drowned every other sound. Slowly at first the giant craft gathered headway, then rolled swiftly forward. Immensely large she appeared to the crowd with her 200-foot wings and long tapering cabin. A moment later she had lifted clear of the earth and was rapidly mounting, headed for the open sea.

"Off on time to the minute," one of the spectators consulted his watch.

"And to think," the man next him broke in, "it's only fifteen years since the first overseas flight. Do you remember the fuss they made about it? It was the year after the war; back in 1919."

"What will she do it in to-day?"

"About twenty hours, but we'll ask one of these airmen."

They soon found a capable looking representative of the line wearing the already familiar uniform of the commercial air service.

"What's your time-table to-day?" was asked.

"Passengers will be landed in London in eighteen hours," the young airman replied. "The flight will be made at the 15,000-foot level. Our reports from mid-Atlantic a few minutes ago promise good air currents."

"Oh, by the way," was the next query, "can you tell us when the daily schedule will begin?"

"In two weeks, sir. The line is only waiting for the new airplane. It will carry a hundred passengers and then we hope to catch up with our waiting list."

"I hear the cabins of the new craft will be very luxurious. Will the cabin rates be raised?"

"No, sir. Only $500, as usual. The meals will be even better on the new ship, and they are to have moving pictures to help pass the time aloft."

"And to think that only five years ago air travel was uncomfortable and some dangerous, too. Is the wireless telephone working with the airplane by this time?"

"Certainly," the young airman explained, "if you will step over to the booking office you can talk to your friends on board. The company makes no charge for such conversations."

"I suppose the flight is an old story to you? How many air crossings have you made?"

"None as yet," the young airman replied, "I hope to have my chance aboard the new liners."

"Thank you very much for your courtesy, Mr. . . . ?"

"My name is Harry Thurston. You are very welcome."

The little party crossed to the wireless telephone booths and a moment later a lively conversation was in progress with the air liner already far out to sea. The crowd quickly disappeared. Now that the cheering crowd had gone, the broad landing field seemed lonely and deserted.

His work at an end for the time, Harry Thurston sought the farthest corner of the field, where he could be entirely alone. The work of preparing for the departure of the air liner had been very exacting, and the day had been a hard one. Six months had passed since he had received his license as air pilot, and still his promised promotion seemed far off. There were so many good pilots ahead of him on the list, many of them older men who had had flying experience in the great war.

The long hours of study and the skill and daring he had shown in his practice flights had readily won Thurston his license. But it was difficult to get a berth even as an assistant pilot on one of the great transatlantic liners, and advancement was very slow. In the meantime Harry served merely as an assistant on the landing field. He overlooked a portion of the field and made sure that everything was in readiness for the great aircraft when they came to earth after their long oversea flights.

Several days of this routine wore on, and the time approached for the appearance of the great new air liner *America,* which was to make possible the long-promised daily air service between New York and London. She would carry a crew of eighteen, including a ranking captain and four officers. Harry saw one after another of these coveted posts filled by various associates, while he was still left, in the slang of the landing field, "on the ground."

The great day for the first sailing of the *America* arrived. From New York came thousands of people to marvel at the luxurious air liner. Every chair of her cabins had been sold long in advance.

The gangway had been drawn in when a door at the side of the cabin was hastily opened and one of the officers appeared with a distracted face. He climbed to the ground, where he was joined by one of the company's officials. After a few moments' hurried consultation the official hurried to Harry Thurston.

"This is most unusual," he explained. "At the very last moment one of the mechanicians has been taken ill. We have no one on the field to take his place and the liner is scheduled to fly in two minutes. I would consider it a personal favor, Thurston, if you would take the man's place for this voyage. You are qualified to fill any position on board, but I hope you won't consider this undignified?"

Harry could scarcely refuse, and the desire to cross on the new liner pulled him very strongly.

"I am ready, sir," he said.

It was the work of a moment to enter the ship. An instant later, with the roar of half a dozen propellers in his ears, Harry felt the great ship roll smoothly forward, vibrate for a moment as it trundled over the field, and then, suddenly taking the air, fall into that smooth, gliding motion now so familiar to all air travelers.

From the long window of the cabin he saw the familiar flying field quickly fall away and become a mere patch of green in the distance. His duties would not begin for a few minutes and he lingered in the luxurious cabin. Every detail gained a new interest now that the craft was high above the earth.

The main cabin or saloon of the airplane was broad with a high ceiling, lined

on either side with broad windows. The air travelers sat in cushioned chairs before the windows. The wireless telephone booths were placed at the prow. In the dining saloon adjoining, the waiters were laying the table for dinner. Most of the passengers were old air travelers and took the extraordinary experience as a matter of course.

Harry soon found his way to the bridge of the air liner. The walls of the little compartment at the prow of the ship were lined with complicated apparatus for navigating the air. The Captain had already laid the course for the voyage, selecting a high altitude, and the steering was left to an assistant who was merely required to keep the airplane on her course. From time to time the Captain used the wireless telephone to discuss the air currents with ships in mid-Atlantic. The weather promised to be fair with favorable air currents.

The *America* more than lived up to expectation, covering the distance between her Long Island landing to the outskirts of London in fifteen hours. Harry's duties in the engine room of the liner were not difficult and the hours passed quickly. An occasional glance from the portholes showed nothing but a vast expanse of sky with the sea three miles or more beneath. The trip was varied by a moving-picture show and by the reading of the wireless telephone news sent out from New York.

The air voyage, in the language of sea reports, was uneventful. On nearing Europe, fogs were encountered which shut out the land and the passengers seemed to float in a sea of mist until they suddenly dropped down upon the London landing field.

The liner was scheduled to return to New York two days later and Harry was to remain one of the crew on the home trip. He was kept so busy that he found no time to leave the field. No one ever visited Europe and did less sight-seeing than Harry on this first trip.

The true story of the *America's* return trip has never been published. Even the passengers had no suspicion of their danger.

The airplane was more than a thousand miles off the Irish coast, flying at a three-mile altitude, when the trouble broke. The piston of one of the motor engines suddenly cracked. The *America* was equipped with no less than six motors so that the loss of one of them was not serious, but the steel rod, in breaking, worked havoc in the engine room. A moment later the driving power of the great propellers suddenly ceased, and the giant air craft, with its hundred passengers, was left helpless three miles above the Atlantic.

The stopping of the propellers of an airplane at such an altitude, as any air pilot will tell you, is not necessarily serious. From such a height it is possible to volplane down and keep in the air for many minutes. This accident had, of course, been provided for, and the *America* was equipped with great pontoons which would keep her aloft on the water until assistance could be summoned.

The passengers heard the power shut off, but went on with their amusements unconcerned. A wireless S O S meanwhile was thrown out over the entire Atlantic. Skillfully piloted in great circles, the giant aircraft began slowly to descend.

All went well until the airplane had reached the air lanes a mile above the Atlantic, when she found herself battling against a full gale. The violent air blast tossed the airplane about like a feather. Only the most skillful airmanship kept her from diving down into the sea.

By this time the officials of the air line on either side of the Atlantic knew of the ship's danger. Frantic appeals were made for help. Several ships were picked up,

but they were hours distant from the airplane. The engines remained dead and the giant aircraft sailed lower and lower towards the storm-tossed Atlantic.

Harry had stood but a few feet from the shaft when it parted and had taken charge of the situation. His experienced eye told him at once that the break was a bad one, and would require considerable time to mend even under the most favorable conditions. In the narrow engine room, which now pitched and tossed as the airplane was buffeted by the gale, Harry worked desperately.

Time was priceless. The broken parts were cleared away and the repairs carried on with feverish haste. Every second of time counted. If Harry could have had an hour, even—half of that time—the work would have been simple, but meanwhile the great airplane was circling lower and lower over the dark waters.

The barometer fell to 2,000 feet, and still Harry and his men struggled over the tangled machinery. It crept down to 1,000 feet, then to 500 feet. An officer stood watching the barometer.

"What is it now?" Harry found time to ask.

"Three hundred and fifty feet."

"Can I have five minutes more?"

"Perhaps."

Already the roar of the water mounted to them. Two more minutes passed.

"One hundred and fifty feet."

For several seconds, which seemed like hours, Harry struggled with the machinery. The airplane was now barely clear of the water. The waves, leaping high in the air, almost reached her keel, when suddenly with a roar her engines picked up. The great propellers gripped the air and the airplane shot forward, master of the situation. In a few minutes she had climbed far above the storm and was sailing westward on her chosen course.

Little was said in the engine room or on the bridge. The officers shook hands with Harry, but no words seemed to do justice to the situation. The Captain, however, managed to find words in which to describe the situation adequately to the anxious officials at home by wireless telephone.

A great crowd waited to welcome the arrival of the *America* from her first voyage overseas. The passengers, who were entirely care free, waved as the ship descended gracefully. There was the usual confusion of happy greetings as the passengers came to earth. No word of their danger had leaked out.

Later in the day when the crowd had disappeared and the newspaper extras were announcing the successful return trip of the *America,* Harry was summoned to a meeting of the directors of the line which was not reported for the newspapers. It did not last long, but when Harry left the conference, he was very cordially greeted by all as Captain Thurston.

The Test Flight

By Rex Vancil Bixby

A SHARP, ringing blow with the light hammer, the spreading of the last cotterpin, and the task was finished. There remained only the tryout—the test flight.

Barney Lewis, a dash of motor grease streaking the side of his tanned, wholesome face, the pockets of his "flying pajamas" bulging with a heterogeneous assortment of wrenches, spanners, pliers, and bolts, stepped lightly down from the box on which he had been standing. With a loving pat on the copper-bound tip of the shining propeller, and a happy "You beauty. It's taken a heap of thought and work to get you, but you're worth it," he stepped quickly to the front of the hangar.

A knock sounded at the side entrance as he started to throw back the wide sliding door facing the flying field. Well he knew that knock, and with a happy smile he turned to unlock the small door.

"Come in, Mumsie, and see the *Blue Bird* with her new whirligig in place," he called cheerily. As she entered, Barney, in the sheer exuberance of genuine affection, seized her hands and whirled her, despite her laughing protests, around the long, low room.

"You great big, grinning boy, with grease all over your face," she said as he brought her to a stop in front of the airplane. "When you and the *Blue Bird* get together you forget all about mealtime. Don't you know it is nearly eight o'clock?"

Honest surprise spread over Barney's face. "Really, Mumsie? I thought it might be five-thirty or so, and I was just ready to take a short hop to try the new prop. Why didn't you call me?"

"Call you, lad? As though that would have done any good!" she replied with an affectionate pat on the broad shoulders. "Your daddy and I know that when you have a date with the *Blue Bird* you never pay any attention to time, and that it is useless to expect you to display any interest in such prosaic things as fresh sweet corn and prune tarts; so——"

"Did you say 'prune tarts'? Come on quick! What are we waiting here for! I'm simply starved now that you have mentioned those good things." He hustled toward the door, his arm tightly about his mother's waist. Then a sudden thought struck him, and he shook an accusing finger before her face.

"I know what you've done, little lady! You knew I would be late and hungry, and so you fixed up an extra supper of the very things I like best. Am I right?"

"What do you know about it, you big boy with your pockets full of tools and your head full of airplanes? Now lock up and come——"

Barney, with a resounding kiss that effectually blocked further conversation, had jumped to see that the fastenings of doors and windows were secured. Carefully the tools were laid out in their proper compartments above the home-made bench. The unionalls—known to

flyers as "flying pajamas"—were quickly hung in the usual corner and, with a click of the key in the lock, the two chums, mother and son, set out, the one to prepare, the other to eat a very belated supper.

Alex Dennis Lewis, one hundred and sixty pounds of clean, aggressive Scotch-Irish-American, was on that threshold where boyhood stands for a time, looking backward with happy remembrance at the joys of adolescence; looking forward with wonder and anticipation to the graver responsibilities of man's estate. Twenty summers had seasoned and hardened him until, his University course just completed, his five feet ten of bone and brawn, his clear brown eyes, his self-possession and exuberant spirits all stamped him as ready for the challenges of Life.

It would be wiser to say that he was so stamped in the eyes of all but one citizen of Hastings, the little mid-western city at the edge of which was situated the Lewis domicile. It so chanced, unfortunately, that this same citizen was the very one whose good opinion Alex Dennis was most anxious to cultivate.

John "Sandy" MacGregor, hard-headed Scotchman, and owner and moving spirit of the MacGregor Engine Works, was the skeptical one.

From earliest boyhood Alex Dennis had loved machinery. The more complicated it was, the more thrill involved in its operation, the more he loved it. Since his first school days he had set his heart on becoming a skilled mechanical engineer; one of the highly trained fraternity whose business it is to design new and complicated machinery of all sorts. The ambition itself was laudable enough, and gruff old Sandy MacGregor had been drawn by the evident sincerity of the lad, and by his announced intention, first voiced when he was ten years of age, to own the MacGregor Engine Works some day.

It appealed to the Scotch determination of the old man who had built the immense plant by sheer force of driving personality and hard work, from nothing to a commanding position in the western half of the United States. It was when the Irish in the complex of Alex Dennis began working that Sandy MacGregor first found his Scotch conservatism outraged. It was then that he first said, "Weel, weel, the bairn is, I fear, to harum-scarum to make muckle o' a mon. A fine one, too but sich love o' excitement will deestract the mind when he becomes a laddie and a mon."

The immediate cause of this decision on the part of the old man was the act of Alex Dennis in taking an old discarded Ford chassis—this was when he was but twelve years of age and entering high school—and, with the assistance of all the books on automotive machinery in the city library, turning it into a crude close-coupled but speedy thing which quickly set new speed records in that vicinity. It was said that the lad had just two speeds on the machine—reverse and full speed ahead.

Despite all the shaking of heads, so great was his natural aptitude for machinery, and his care in driving, that never an accident marred his exploits. Gradually the whole countryside began to take a sort of pride in the accomplishments of the youthful mechanical prodigy, and he was affectionately dubbed "Barney," after the illustrious dean of American racing drivers. A roar down the road, a swiftly approaching cloud of heavy Nebraska dust, the flash of a broad, genuine, American-boy grin behind a steering wheel almost as large as the lad himself, and a quickly vanishing streak of diminutive car that constituted certain identification.

"There goes Barney and the *Blue*

Streak," folks would say, with an appreciative smile for the nerve and wholesome boyishness of the youngster.

So it went during high school and the University. His undertakings became more ambitious, more exciting; yet through them all ran a strain of seriousness. Every mechanical experiment, every exciting activity, was a step of progress and steady advance toward his goal of skilled craftsmanship in his chosen profession. Blue was his unvarying choice of colors for his machines. It was as though the color typified the fidelity with which he clung to his cherished determination.

The *Blue Streak* gave way to the *Blue Goose,* a powerful assembly of parts from a half dozen discarded high-power cars. During the school year, hard thought and mechanical theories occupied his time.

At the end of his sophomore year at the University, Barney decided to work out some original ideas in the line of airplane control. This required that he build a plane. His calm announcement to that effect had succeeded in making a good deal of a stir in the little city and, despite the confidence felt in his mechanical ability, nearly all doubted that his efforts in this new venture would meet with success.

A five-acre pasture adjoined the modest Lewis home, and this Barney immediately leased. Largely from old lumber he constructed a hangar. In this hangar he locked himself from morning to night for the three months of that vacation. No one but himself knew what progress he had made when he finally locked the doors and went back to Lincoln for his junior year. The next summer he followed the same tactics. The *Blue Goose* gave up her sturdy six-cylinder motor, and from this the interested populace knew that real progress was being made.

The whole community was atingle with anticipation. Inquisitive boys, listening just outside the hangar—Barney kept the windows closely curtained against the curious—reported the steady tapping of various tools. The air for a block in each direction was often heavy with the sweet smell, as of banana oil, which was identified with ease as the odor of "dope" for coating the heavy canvas of wings and fuselage.

Just one week before the vacation period ended the city was startled to hear, one evening, a roar of rapid explosions, as though a dozen machine guns, perfectly synchronized, were firing at once. A moment later a compact, smoke-spurting biplane, painted a brilliant blue, and with the name *Blue Bird* painted on the under side of the lower wing, climbed noisily from the five-acre field and circled evenly over the heads of the hundreds who thronged the streets to see how Barney Lewis had made good on his promise to build an airplane.

Bicyclists, pedestrians, and motorists were scrambled indiscriminately in the rush to reach the field before he should descend. The result was nearly disastrous. The crowds thronged the field so thickly that there was no space in which Barney could land. He had started with but a small supply of gasoline, expecting to make just a short trial hop, and he found himself coming down without having any place to come down to.

Fortunately his mother sensed the situation after he had circled three times around the field and, unable to make her voice heard above the roaring of the big motor, she proceeded to banish the crowds by flapping her apron before them, just as a mother hen drives intruders back from her brood. She succeeded in getting a space cleared just as the last sputtering coughs of the motor, completely out of fuel, made immediate decent necessary.

That event sent the stock of Barney Lewis still higher in the estimation of all but Sandy MacGregor. The latter could see no good in "sich carryin's on," and was not backward about so stating. The reception of the crowd when Barney landed was in the nature of an ovation. Requests for rides seemed to accompany every handshake. These requests he had to laughingly deny.

"The little bus will just about keep herself afloat now," he told them. "The motor is a good deal heavier than a regular aviation engine and, while it can handle two or three passengers, and the plane itself is capable of carrying them, the propeller I have doesn't have enough pitch to keep her in the air with a heavier load. Never mind. I'll have a prop one of these days that will do it."

During spare hours that year—his senior year—Barney worked on the problem of designing and making a propeller of the proper shape and size. By special permission from the Dean of the Engineering College he was permitted to use the woodworking machinery in his experiments. The results were satisfactory, and the big new mahogany and spruce "stick" was completed just two days before his graduation.

He had been at home just three days now. Two things had occupied his time: the installation of the propeller, and an interview with Sandy MacGregor—an interview to arrange the position in "the Works" for which Barney had been studying and working so industriously. The installation was completed and all in readiness for the test flight. The interview——

Barney's father was the one to open the conversation after due respect had been paid to the prune tarts and other delectables. Barney had drawn a chair for his mother and placed his own so that the family circle presented an intimate and cozy appearance in the soft light of the shaded reading lamp.

Such little family councils, clearing houses of a sort for the events of the day, were a regular feature in the life of the Lewis clan. Scotch calmness was predominant in the head of the house, Ian Charles Lewis. His days were given over to the management of his modest jewelry store. His days were never too full of perplexities to find him, at night, actively interested in the activities of his son. Their friendship was an ideal father and son companionship. Irish impulsiveness was predominant in Mrs. Lewis, who devoted herself to the care of her "two boys."

"Well, Son," spoke his father, as he folded the evening paper and laid it aside, "how did your interview with Sandy MacGregor come out this morning?"

"It was rather short and to the point, Dad," replied Barney with a half-whimsical smile. "I asked Mr. MacGregor for a place in his organization; any place that would give me an opportunity to learn the business from the bottom up; but——"

"And was he receptive to your suggestion?" queried the older man quietly as Barney hesitated for a moment.

"Not exactly," grinned the young flyer across the table. "He said a good deal about me being more interested in the things above the clouds than in the bottom of his business. I gathered from his talk that he hasn't much sympathy with aviation or aviators, even cub aviators. He thinks it a clear indication that I would rather fool my time away than devote it to serious business."

"Mr. MacGregor is an exceedingly practical man," was his father's noncommittal reply.

"I know that beneath his gruff exterior he is a very tender-hearted and senti-

mental man," said Mrs. Lewis with her bright smile. "Just to-day I saw him taking a walk with his little four-year-old granddaughter and the beautiful collie he bought for her birthday a week ago. He was buying candy, peanuts, ice cream cones and whatever else met the fancy of the little girl, and you never saw a man enjoy himself more. She is certainly the apple of his eye."

"Yes, Mother, and if you carry out your fruit simile still further, he seems to think I am a lemon," was Barney's quick rejoinder.

There was a thoughtful silence, broken finally by Barney.

"Well, I did finally get him to say that if I could ever show him that my thought and work with the *Blue Bird* was not a waste of time, he would put me where I'll have all the opportunity I want. He seems to have a sort of liking for me in some ways, but he says that results are his tests for men and machines. If I can convince him he will make me assistant to his chief draftsman. Well—he wants to be shown."

Both parents, seeing him deep in thought, refrained from interruption.

"Of course," he said slowly, "The Nebraska Airplane Company—I guess the Dean told them of my work with the propeller—have offered me a proposition that deserves consideration, but it seems that I've always wanted to become identified with the big MacGregor organization. I've even," he smiled whimsically, a far-away look in his eyes, "cherished the idea that some day I would head the business. That's building air castles, but," he sat erect, his voice snapping out much like the exhaust of the *Blue Bird's* motor, "I'm going to stick right here and break down Sandy MacGregor's reserve. I'm going to make him make good on his promise of this morning."

"That is the spirit, Alex, lad," beamed Mrs. Lewis enthusiastically.

"I think it likely you will succeed, Son," agreed his father quietly. "Sandy does na' realize that your expeeriments with engines and such has been a sort of testing block for your book-taught theories. But he will, he will."

Finally Barney rose, stretched himself with a good-natured yawn, and turned toward his parents.

"I'll be up early to test out the *Blue Bird's* new stick in the quiet morning air," he said, "so I'd better call it a day. Good night, and don't let me disturb you in the morning."

With a swift good-night kiss to his mother and a firm handclasp with his father, he turned toward the living-room stairway.

As he reached the first landing, his thoughts already deep in the possibilities of the next morning's flying, there was a swift roar from a heavy exhaust just outside, and the screech of locked brakes. Before any of the startled family could reach the door the latch was violently lifted and a big, disheveled form burst into the room.

Eyes reddened by unrestrained tears (the tears of a strong man deeply moved), John Sandy MacGregor, staid, gruff man of business, rushed, with a cry as of a stricken thing, to the center of the room. In his arms, tightly clasped as though to fend off anything that might seek to injure her, lay his little granddaughter. His shirt open at the neck, his hands clasping convulsively about the little form, while great beads of perspiration trickled down over his tortured countenance, Sandy MacGregor fought for speech.

Stricken silent, and aware that something of tremendous portent was responsible for this flood of emotion in the

usually stoical Scot, the Lewis family awaited the flood of language which would clear the situation.

"Ooh, Ian mon, I am a sore stricken mon. The wee bairn——"

Convulsive sobs racked his body, and while Mrs. Lewis laid the little girl tenderly upon the davenport, Mr. Lewis and Barney sought to calm the near hysteria of the older man. It was but a moment until another car whirled to a stop, and but another moment until the incisive but strained tones of Dr. Morrison, the head of the local hospital, broke in:

"Early this morning the collie was bitten by a large rat. It was before the family had risen, and only the chauffeur, who was polishing Mr. MacGregor's car, saw it. He thought nothing of it and did not report it until to-night. It was evidently infected with rabies, for to-night the dog suddenly went mad. Before it could be killed it had bitten the little girl. Her parents are East on a visit."

Mrs. Lewis stooped and stroked tenderly the little head where a few tiny golden ringlets lay on the white forehead.

"There is," the voice of Dr. Morrison cracked out with professional emphasis, "just one hope for the baby. She must be gotten to Omaha at once for the Pasteur treatment. Barney," here he turned and faced squarely the tense, alert figure of the boy, "there is no car in the city that can make the trip under four hours. There is just one possible hope—your airplane! Can you——"

The doctor found himself talking to the empty air, while the sharp slam of the kitchen door gave testimony that Barney not only could but would. He had rushed to prepare the *Blue Bird* for flight.

"Back, everybody," snapped Barney, stepping to the front of the silent plane. Couchant it seemed as it stood before the hangar—a homemade airplane confronted by an emergency in which life and death hung poised in the balance. The new propeller, calculated to carry two passengers, stood poised in its horizontal position, untried and untested; yet, as Barney touched it, the polished sturdiness of it thrilled him with a feeling that it would not fail.

The crowd, which had gathered rapidly as the news of the race against death spread from house to house, fell back, opening a clear, wide, flying lane from one end of the field to the other. On either side of the open space stood the silent forms of dozens of automobiles, their dark shadows standing out in eerie fashion against the clashing beams of their headlights. Hundreds and hundreds of horse power, the products of the finest craftsmanship and master minds of the automotive industry—and yet, in this emergency, silent they stood on the side lines, while upon a lad of twenty-summers and his rude, but sturdy machine rested the responsibility. Nor was that all; the very one whom he must save was the dearest possession of the one man who had derided the lad's mechanical experiments and criticized his devotion to them. A *test flight* indeed! And none knew it better than tight-lipped, silent, white-faced Sandy MacGregor, as he stood clasping his precious burden, his eyes fixed on the shadowy figure of the one in whom every hope was reposed.

Swiftly Barney threw the propeller past dead center, whirling it three full revolutions so as to suck full charges of gasoline into each cylinder. Back to the cockpit he dashed to throw the switch into plane; then back again to the propeller. A sharp snap of the big stick past compression and the little plane awoke to pulsating life.

The wheels securely blocked, Barney climbed to the cockpit and carefully warmed the motor, opening the throttle

gradually until the sheets of flame from the exhaust pipe seemed one continuous, weird torch of light, and the roar of the motor mingling with the sibilant thrash of the all but invisible propeller seemed as the rising challenge of the sturdy machine to the darkness and cold mistiness of the night—confident of conquering those black, intervening miles of unknown air currents in time.

Satisfied, Barney cut his motor to idling speed and climbed down. Pulling the blocks from under the wheels, and adjusting helmet and goggles, he was ready.

Some one would have to hold the little girl. Volunteers were not lacking, but it was Sandy MacGregor himself, avowed hater of airplanes and such, who silenced all opposition by simply climbing into the cockpit and commanding Barney to fasten the safety belt. That done, and a crisp instruction being given to have flares used at the Omaha field to guide them, Barney snapped his own belt, grasped his controls, and eased the throttle slowly open.

Swiftly the throbbing motor gathered speed; the cut of the big, new propeller seemed actually to bore into the darkness, and the close-parked lines of automobiles slid swiftly past them. At first the jarring vibration of the dragging tail skid broke the evenness of their motion. As their speed became greater, however, Barney eased the control stick forward, the tail lifted as the rush of wind caught the elevators, and they shot forward with the smoothness of a bird.

Faster and faster they drove into the darkness, the wheels now touching, now lightly skipping from the ground as the wing surfaces caught the cushioning, sustaining force of the night air. With a whispered prayer he shot the throttle to the wide-open position and snapped the control stick back.

Would she take the air—would the pitch of the new propeller give them sufficient air speed to carry the double passenger load—had his figuring been in vain, or would the *Blue Bird* throw herself easily into the gulf of night and climb upward to a safe flying level? An untried propeller of unknown lifting capacity, night flying a totally new experience with its perplexing problems of equilibrium and judgment of distances all yet to be solved—solved, not at leisure, with nothing at stake but the plane and his own safety, but solved while carrying his precious freight of childhood to the goal of health—a race against death.

Small wonder that the heart of Barney Lewis seemed to be in his throat as he pulled back on the stick and waited for that indefinable something which tells the airman that his ship is answering the controls faithfully.

As though aware of his thoughts and anxious to relieve his anxiety, the faithful little ship, roaring like a thousand furies, and streaking flame and white-hot sparks of incandescent carbon, took the controls like a thoroughbred and zoomed up in a swift, steady climb.

Even the nerve-racked features of the man beside him, sensing in the performance the smooth action of well designed and nicely functioning machinery, relaxed in a half smile of appreciation. Mechanical perfection was almost a religion with him.

At a height of approximately 2,500 feet Barney leveled off and headed northeast by east, keeping the barely visible glare of the lights of Lincoln between his right-hand struts. He knew that in a few minutes the Omaha glare would be visible, despite the slight fog which was hanging low. A careful look at all his gauges showed oil and gasoline supply to be satisfactory and the generator functioning smoothly. Satisfied, he settled back in his

seat, determined only to keep the *Blue Bird* straight as an arrow on her course.

The worries of night flying were all present. The torque of the motor had its natural tendency to keep the left wing of the plane below the proper level. This, unless counteracted, and unless counterbalanced by an excess of pressure on the right side of the rudder, called by flyers "carrying right rudder," would tend to throw the ship into a wide swinging turn to the left, and off course. Hardly less troublesome was the natural tendency to let the optical illusion of the lights below and the darkness above lead him into the error of permitting the nose of the ship to drop slightly, thus letting the motor "race" and rack the plane with excessive vibration.

"By George," he muttered to himself, "the little *Bird* has more speed than I thought. I got about fifty miles an hour with the old prop and I must be getting close to eighty with this new one. Good old *Blue Bird*!"

No word passed between pilot and passenger; partly because conversation would have been all but impossible due to the roar of the motor.

There was no outward evidence, further than several swiftly approving glances, but the opinions of Sandy MacGregor were undergoing a vast revision. Reluctantly almost, but steadily, he was acquiring a degree of respect for his young pilot and his "contraption" that truly surprised him.

Before either man realized it, they were over the outskirts of Omaha. By automobile highway the distance between Hastings and Omaha was about 170 miles. The straight line of their flight shortened the distance to about 145 miles, and a swift glance at his watch showed Barney that they had covered the intervening miles in one hour and fifty minutes.

He peered intently over the side of the fuselage, trying to locate the big, flare-lighted flying field. In one great circle of the light-studded panorama below them he spotted it and, cutting the motor to idling speed, threw the plane into an easy volplane. Hardly had he nosed down into the long, smooth glide when a cutting searchlight beam, slashing across the dark heavens like a white-hot sword, caught them squarely. Two thousand feet up they were, and yet, with the wind singing in the cross-brace wires, there came to them, as the searchlight found them, a chorus of muffled cheers from the big knot of people easily discernible in the light of the flares.

Catching the wind direction from the big white landing "T," Barney banked over and came into the wind on a steep glide. With a swift movement of the throttle he "cleared" his motor; then, barely ten feet above the ground, he eased his gliding angle and slowly leveled off as the plane hovered nearer and nearer the hard, smooth landing surface. Catching the moment which tells the flyer his plane is ready to touch on wheels and tail skid —a perfect "three-point landing"—he brought his stick sharply back, and the *Blue Bird* settled easily to a smooth, swift landing.

A short run till momentum ceased, then a short taxiing to the waiting ambulance, and the trip for Barney was finished. Not finished either, for it was some minutes before he could break away from the congratulating crowd, leave the *Blue Bird* with the field guards with instructions to refill oil and gas tanks, and catch a taxi for the hospital.

Sandy MacGregor and the little girl had been whisked away on the instant of arrival, and when Barney reached the big, white-corridored hospital he found everything in splendid shape. The doctors as-

sured him that the trip had been in time, though the margin of safety was small indeed, and that the speed of it had undoubtedly saved the life of the baby girl. Since Sandy MacGregor himself would do nothing but sit and hold the hand of the little sleeper, Barney put through a long-distance call to assure the folks at Hastings all was well.

Tiptoeing to the room for a good-night look, he found that the nurses had finally succeeded in convincing the old Scotchman the baby would be in good hands and that he should go to a hotel and get his own nerves rested. As they both turned away, knowing that the trip had indeed been successful in saving the little life, the older man put his hands on Barney's shoulders and, his voice choking with genuine emotion, delivered himself of his sincere sentiments.

"Lad," said Sandy MacGregor, hater of airplanes, "will ye noo forgi'e an old mon his harsh words? Ye hae deemonstrated to me sae clearly words will na' come to me. Lad—lad—weel," drawing himself up abruptly and blowing stentoriously on a generously proportioned handkerchief, "weel, your pay starts now, and a week froom next Monday ye take up the poseetion I promised to ye.

"And, lad," he said almost timidly, as an afterthought struck him, "you hae my word that 'twill noo be long before there's a muckle better poseetion ready an' waitin' for ye."

The Courage of Lieutenant Cole

By Mather Brooks

Illustrated by William C. McNulty

THE air route from Laredo to San Antonio, Texas, is remembered by those aviators who have flown over it as being divided into two parts. The first, running from Laredo to Cotulla, is an unbroken carpet of mesquite green, stretching in all directions, and, to the man who flies, very uninviting, for there is no place to land in case of motor failure. From Cotulla to San Antonio, the route is pleasant, over wide, open fields of grain, corn, and cotton.

Again, from the airman's point of view, the railroad cuts through this mesquite carpet like a silver thread to which, at irregular intervals, varicolored disks are tied; the small towns with the fields about them which huddle against the steel rails, the one element that keeps them from total obscurity.

On an early morning in June, when a heavy gulf fog had rolled in and lay over the mesquite like a wet, gray blanket, an army airplane took boomingly off from the small Air Service Station at Laredo and headed north. The pilot of the machine, Lieutenant Stanley Cole, cared not a whit for fogs and the hidden menace they carry for the aviator. It is unlikely that he would have paid much attention to this particular fog, for, after an exile of six months of border patrol duty, Lieutenant Cole had been relieved and was San Antonio bound. Or more correctly, bound for Keeler Field, the big Air Service Station that lies just outside of San Antonio. But to Cole, it amounted to the same thing. He had many friends at Keeler Field and he liked the ancient city of the Alamo.

All things being considered, Lieutenant Cole, from his snapping blue eyes beneath a crop of crisp, sandy hair, to the tips of his glistening, close-fitting boots, was happy, and exuberant as well. Therefore he opened the throttle of his plane a trifle more and grinned at the deep-toned, instant response of the big motor.

His plane was lightly loaded. No mechanic sat in the rear seat and the only cargo was a pair of suitcases. Cole did not fly high. He wanted to see the ground and follow a positive course. The wheels of the airplane skimmed ten feet above the telegraph poles which bordered the railroad, and the rails themselves shot beneath the wings like a rapidly moving strip of magnesium. If he had flown one hundred feet higher, the aviator would have had to trust to his compass for direction as the plane would have been immersed in the fog and out of sight of the ground. Cole had two alternatives, one of flying above the fog and out of sight of the ground, and the other of doing as he was, traveling just above the surface, which was easier. So, being in a hurry, he had chosen the latter, and sped along above the railroad, following its slight, occasional turns with ease, and exhilarated by the sensation of speed which the airplane's

nearness to the ground seemed to magnify. Thus he flew for thirty minutes.

At the end of that time, he reached a point where the railroad bent rather sharply. Cole knew this bend and also knew that, after two miles on the new course, where it struck the dozen houses of the town of Casa Blanca, the rails angled back, like a big V, and continued north. He elected to save time by cutting across the open end of the V and momentarily forsook the guidance of the silver rails.

Then disaster overtook him. The gear on a vertical drive shaft of the motor stripped without warning. Before he quite realized it, the welcome roar of the explosions had ceased and the propeller, which had been a transparent silver disk, became visible as it revolved aimlessly, kept in motion by the pressure of the wind alone. The power plant of the airplane was useless.

The green tops of the mesquite trees so close below came rushing up.

Cole held the plane in the air as long as he could in the hope that he might be able to reach the railroad again and attempt a landing in the cleared space of the right-of-way, but the plane did not have enough altitude to glide a hundred yards, much less the remaining mile to the bend.

The top of a single, large mesquite tree loomed immediately ahead. Cole jerked the control stick back. The nose of the plane heaved up. The machine hovered, and crashed into the tree.

There was a deafening crackle of snapping branches and wood, mingled with the sibilant, hissing undernote of ripping linen. Then, to Lieutenant Cole, came a stunning flash of light, and after that—darkness.

The accident was unobserved; and Cole lay in the crumpled machine for two hours before he regained consciousness. It was two hours more before he struggled into the little town of Casa Blanca, carrying a fractured forearm, a badly cut head, and enough bruises to incapacitate two ordinary men.

Six months after this occurrence, Lieutenant Cole, his broken bones knitted nicely and the first scars of his wounds gone, climbed into the cockpit of an airplane for the purpose of taking the first flight since his accident. He had been looking forward eagerly to this ride for some time.

Lieutenant Frank Vardon, who was to pilot Cole, was almost as happy over this event as was Cole himself, who was confident as he stepped into the plane. He was still confident when, under the guidance of Vardon's steady hand, the plane swept fleetly across the expanse of Keeler Field and slid effortlessly into the air.

The flight was short. The machine landed in ten minutes and discharged its passenger, a shaken, white-faced man. It was Cole, but he was cut to the fiber of his being by the awful realization that his nerve—the one priceless asset in the business of flying—was gone.

When he had first looked over the side of the cockpit after the plane had taken the air, he had felt an almost uncontrollable desire to leap out. He had resisted it, fighting himself grimly. Minutes, that seemed centuries in length, passed in an agonizing procession.

Lieutenant Vardon banked the airplane. When the shining wings dipped, Cole clutched at the sides of the cockpit until his knuckles showed white. Then he motioned Vardon down. The climax came when the pilot shut off his motor and headed the nose of the plane toward the ground.

Before the colorful map which was the earth, rushing relentlessly at him, Cole yelled. Then he covered his eyes with his hands and cowered down in the cockpit,

a picture of abject terror—a pitiful comparison to the once happy, confident athlete—now the physical shell only of what had been, but a short time before, one of the coolest, most skillful pilots of the Air Service.

"What on earth's the matter, old man?" demanded Vardon of his white-faced passenger as the latter clambered to the ground after the flight. "Sick?"

"Yes," Cole nodded quietly. "Might as well call it that. I've developed a streak of yellow down my back as wide as this flying field. That wreck I had at Casa Blanca broke my nerve. I never thought I'd see such a day," he finished dully.

"That's natural. Anybody feels that way after a bad wreck." Vardon spoke encouragingly. "It's happened to me. You'll just have to go easy for a while. Then you'll come back all right. Don't worry."

"I hope you're right," replied Cole.

Stanley Cole was game. He tried—hard—to come back. Every day saw him go through the ordeal of flying. But, instead of being overcome, his fears grew worse. To Captain Hixon, the flight surgeon and the medical officer who had the exclusive duty of looking after the health of the pilots at Keeler Field, Cole reported favorable progress, hoping that, in time, his report would become a reality. But he did not deceive the Captain, who made it a point to be present and see Cole as he climbed out of Vardon's plane, some two weeks after he had started flying again.

Cole was shaking with relief as usual when he stepped on the ground. The flight surgeon honored him with one sweeping look. Then he collared the white-faced officer and gave him a push toward his quarters.

"Get away from those airplanes, son," directed Captain Hixon crisply. "You're not doing yourself a bit of good, although you're as game as they make 'em. Sorry, but don't look at a plane until I give you permission. Right now you're done."

"Done!" Lieutenant Cole smiled through his hurt at the well-meaning words of the flight surgeon and started to his quarters. Upon arriving, he slumped down into a chair and buried his face in his hands.

"I feel like a piece of machinery that has a gear out of kilter," he told himself. "Seems like there's a part of my make-up gone. The thing to do is quit. . . . But I won't—I can't. . . . I've got to stick it out!"

Perhaps it was a foolish decision. Cole, being a radio expert, could have transferred to another branch of the army, far from the Air Service, and continued his existence happily. Nine men out of ten would have done so, but not Stanley Cole. Until he had regained his lost confidence and air sense, the things that had gone when he was knocked unconscious in the wreck at Casa Blanca, he would stay on the firing line.

In the six months that followed, Cole worked as he had never done before. The air beckoned and mocked. He wanted to fly and yet dreaded the thought of it. He was always conscious of his failing. It was these things which made Cole work night and day—a vain attempt to justify himself in his own eyes.

So matters stood until his squadron, the 51st, performed a series of maneuvers to demonstrate the uses of radio telephony in aircraft before a large class of Reserve Officers who were undergoing training at Keeler Field.

Nine-thirty of the morning set for the maneuvers saw the airplanes of the squadron drawn up at the east end of the two-mile-long row of hangars. Just past the end hangar, surrounded by the class of

Reserve Officers, stood a motor truck with a high, box-like body—a Signal Corps Radio Truck. Above the truck was strung the aerial and through the roof of the body had been installed the horn of a loud speaker so that the class of officers could hear plainly the messages from the planes in the air.

Lieutenant Cole was everywhere. His collar was open; his sleeves were rolled above his elbows; and his hands were grimy. But the compact, yet marvelously complete, radio telephone sets in every plane were tuned to their highest efficiency and working perfectly.

"Lieutenant Cole," Vardon stopped his busy friend. "Are we all set?"

"Yes, *sir,*" replied Cole. "I stayed up all night with those sets and they're O.K. What's the matter with you, man? You look like you had indigestion."

"Gosh," Vardon grinned back at his friend. "Do I look as bad as that? Well, don't let that worry you. I just didn't sleep well last night."

"You better be in good shape for this flight," bantered Cole. And then added, with an ease that he did not feel: "I'm going to tag along myself, and I want to be sure my leader is in good condition. Yes," in answer to the question in Vardon's eyes. "I've stayed away for six months. Now I'm going to try another flight."

"Here's hoping you have the best time in the world on it," Vardon, as he extended his hand, spoke sincerely. "There's nothing I'd like to see happen more than you recapturing the old nerve."

"Thanks. . . . Who're you going to haul on this flight?"

"Major Kelly, of the Field Artillery. He's a visitor here and is going up with me on his first ride. He has never been in a plane before. Too bad we have to stick to straight flying today. I'd like to stunt the major a trifle. I believe I could bring him down kinda sick. Hey?"

"I'll say you could. Well, have patience. You might yet have the chance. . . . I'm going to hold down Smith's rear cockpit."

At precisely ten o'clock, the hour scheduled for the maneuvers to begin, four airplanes, their Liberty motors beating a thunderous quartet, left the ground at Keeler Field. Five hundred feet above the hangars they slipped into perfect diamond formation. The plane piloted by Lieutenant Vardon, and flying the position of home plate, led. Fifty feet behind and twenty-five feet above, holding the positions of first and third base, came two other planes. Lieutenant Smith's plane, with Cole in the rear seat, flew twenty-five feet above these two planes, in the position of second base and closed the diamond. It was directly in line with Vardon's plane, only fifty feet above it.

The pilots unwound the single, two-hundred-foot strands of phosphor-bronze wire that served for the antenna of the radio sets. These shining tentacles, held below the airplanes by lead weights on their ends, but bent back by the force of the wind, nevertheless gave the machines the appearance of huge, droning insects, each of which carried a long, curved feeler.

Rasping through the horn of the loud speaker on the roof of the radio truck, and plainly heard by the group of Reserve Officers, came the voice of Lieutenant Vardon, who was leading his formation across the field at an altitude of fifteen hundred feet.

"Right turn—March!"

With the precision of a well-drilled squad of soldiers, the four planes banked and wheeled to the right as a single unit. Not a machine veered from its position. It was an interesting sight.

After a few minutes of maneuvering

with the formation as a unit, Vardon turned his attention to the directing of individual planes. At his command, plainly heard by the class on the ground, a plane would break formation, dive, and come sweeping across the ground, simulating ground attack. Other tactics followed in rapid succession, all controlled from the air.

Cole cursed the foolish resolve that had led him to fly again when he well knew how it would affect him. As usual he was sick, nauseated, and prayed for the time to pass quickly so that he could feel himself once more on the ground again. And yet, when the planes did land, he remained in his seat while bombs were hung on the bomb racks beneath the lower wings preparatory to the bombing exhibition which was to follow. Somehow, he determined to stick through another flight, even though the mere thought made him sick and miserable.

And then he was in the air again—the air which lured yet cowed him. The little formation—there were only two planes, flying tandem, this time—was far above the field. Through the head phones that fitted in Cole's helmet and which were insulated against the roar of the motor by caps of soft rubber that enclosed both instrument and ear in a sound-proof compartment, came Lieutenant Vardon's voice.

"Ready—release your bombs as soon as you catch the target in your sights."

Cole, who was acting as Smith's bomber, stood erect, held in the plane by the gunner's belt from the seat, and, leaning over the edge of the cockpit, sighted over the crossed wires of the bomb sight. But the ground, three thousand feet below, was an indistinct shaking blur.

"Watch for— Oh! . . . My God—" The words, as they came through Cole's headphones, dwindled off strangely. He squinted forward at the leading plane. It seemed as though Lieutenant Vardon was leaning down, looking at something on the floor of the cockpit. At the same time the plane veered to the left, leaving the course, and started to make a wide, shallow spiral.

Cole, momentary bewilderment taking the edge from his fear of the air, watched the leading plane in amazement. Vardon did not move.

Then, through the head phones, came a voice which Cole recognized as belonging to Major Kelly, the Artillery Officer who occupied the rear seat of Lieutenant Vardon's plane and who was on his first flight.

"Vardon's fainted. . . . Controls jammed . . ."

The meaning of the drifting to the left of the leading plane was made clear to Cole with this terse message. Vardon's inert feet had locked the rudder bar and the plane was circling downward with the motor running at cruising speed. . . . The major had never been in a plane before. . . . He could not fly. . . . The minutes of the lives of the two men in the plane ahead were numbered?

And the bombs. There were two hundred pounds of concentrated destruction hung beneath the circling airplane's lower wings. If the machine struck the ground with that cargo—and if it struck anywhere near the hangars or barracks—the toll of deaths would be appalling.

"I guess we'll hit," came Major Kelly's voice through Cole's headphones. "I understand the bomb release and I'll try and drop them when the plane drifts clear of the buildings. . . . So long."

He was a *man,* was the major.

The two planes were now only two thousand feet in the air. Below them, flanking the immense green flying-field, was the two-mile row of red-roofed hangars with the brown mass of uniformed men at its end.

Cole looked from the ground to the leading plane, in time to see a group of black objects, resembling half a dozen large pears, drop from the machine and curve downward toward the open center of the flying-field. He heaved a sigh of relief. One danger was past—but the bony hand of death was guiding the plane ahead. And in that plane unconscious and helpless was Cole's best friend, and another man who, because of a justifiable ignorance of the art flying, was as helpless as was Vardon.

From below appeared a cloud of whitish smoke. Loud, even above the roar of the four hundred horsepower motor, came a thunderous roll. The breeze shifted the smoke cloud, revealing a gaping black hole in the green bosom of the flying field.

Then Cole discovered that his fingers, trembling but persistent, were unfastening his helmet. The discovery, with a premonition of what it meant, sent a wave of nausea over his body. But Cole, his breath coming in gasps, drove everything from his mind but the thought of the two helpless men in the plane ahead, and worked frenziedly.

Smith felt his shoulder gripped as by a vice. He took his eyes from the fated air derelict and turned, then started as he beheld Stanley Cole, wild-eyed but determined apparition, his helmet and boots gone, clinging to the side of the front cockpit. As Smith gazed at him, Cole reached over, pulled the headphone free of the pilot's ear, and shouted:

"Get on his right side. I'll go out on the wing and transfer. . . . I can land him all right. Hurry!"

Smith hardly recognized those hoarse, insistent tones as belonging to his passenger. His answer was to jam the throttle wide open and send his plane almost on top of the circling machine ahead.

Then Cole started on a long journey: out to the tip of the wing of Smith's plane, then underneath to the wing skid and from there to the upper wing on Vardon's machine and on to the pilot's cockpit. It was a journey of sixty feet, approximately, but to a man whose every muscle required an individual effort to make it respond, who was quivering with fear, yet driven on by a will that was relentless, it appeared an endless trail of racking torture.

Clinging to the bracing wires, always fighting the force of the ninety-mile wind that gripped, and tore, and exhausted him as he strove against it, Cole, walking carefully on the rear main spar of the wing, moved outward.

Drenched with a perspiration that was both hot and cold, Cole reached the tip of the wing. Major Kelly, in the plane ahead—so near and yet so far—lifted a white face and waved at him. The feeble grin which the major mustered, acted as a cooling draught to Cole.

Cole pulled himself across to the front edge of the wing and lowered his legs into space, groping for the small curved skid underneath the wing tip with his feet. He found it. There was a moment of struggle when thought was impossible, and he was hanging by his hands from the wing skid, the sockets of his arms and shoulders aching with the strain. Between his feet, inclined back toward the tail by the pressure of the wind, and the ground was fifteen hundred feet of nothingness.

Just ahead and below, the upper wing of Vardon's plane rose and fell in response to the atmospheric cascades, for the warm sun was stimulating the air currents. So skillfully was Smith following, and so exactly did he judge the speed of the plane in front, that, to Cole, the oblong of taut, green linen below appeared almost stationary. Yet—it was woefully small compared

to the warmly tinted world farther down, and which seemed to be sardonically beckoning.

Smith's plane drew abreast and a short distance above Vardon's machine. The wing of the upper plane dipped. Cole tensed his muscles. The drumlike surface of the captain's plane was five feet from his reaching toes when something gave. . . .

There was a terrifying, nerve-shattering instant when his heart seemed to choke him—a sensation that threw into insignificance all that Cole had previously experienced, or hoped to ever again—then a jar. His left foot struck something that tore and caught. And he was blessedly still.

He opened his eyes to find himself lying flat on the upper wing of Vardon's plane. His two hands were extended and gripped half of the defective wing skid, which had broken from his weight. The plane was steadily banking to the right, under the load on its wing, with no correcting hand at its controls. The wing on which Cole lay was already tilted alarmingly; it seemed like a steep roof. Yet he did not slip. He thanked his lucky stars for this an instant later when he discovered that his left foot had broken through the wing covering and caught, holding him.

But it was no time to marvel at his escape or good fortune. The wing on which he lay was banking steeper. The ground was very close, and its rate of approach was growing more rapid.

Cole cast the useless remnant of the wing skid from him, jerked his foot out of the punctured wing, and started on a clambering, clawing, upward journey to the cockpit. He was past thought now. An impulse that he could not define was urging him on—on.

At last he reached the fuselage. It was tipped sideways, for the steadily banking airplane had reached past the danger mark and its motion had changed from forward flight to a vertical sideslip.

Hooking a foot in the cockpit, Cole jerked the inert pilot back with fingers that bled. He grabbed Major Kelly's hands and put them on Vardon's shoulders. The major understood, and held the pilot back. Cole slipped thankfully into Vardon's lap, pushed his feet away from the rudder, where they had held the bar locked, and grasped the controls of an airplane for the first time in over a year.

There was no time to think or speculate. He acted involuntarily. The stick was jammed far over—then back. The rudder bar twitched—and the plane righted itself. It was not an instant too soon, for Cole had to zoom to clear a water tank on the flying field. Over the hangars, he jerked the throttle shut, and, as the ground, which had been his terror for over a year, loomed up to meet the settling plane, he gave the stick that deft, final, backward pull that completes a good landing.

The plane responded like a human thing. Without a perceptible jar the wheels and tail skid touched the earth together; the plane stopped rolling in the shortest possible distance landed perfectly.

Over Lieutenant Cole's face came a strange expression—the look of a man who has toiled up a mountain filled with hardships and dangers and who, at last gains the summit and gazes down at the fertile valley at his feet.

He taxied the machine, unwieldy on the ground, to the hangar with the touch of a master. As men came crowding up to lift the unconscious Vardon out, Smith's plane came whining over the buildings.

Captain Hixon, the surgeon, gave one look at Vardon as, lying on a stretcher, he was lifted into the waiting ambulance. The surgeon nodded his head.

"Appendix burst," he said briefly. "Had slight symptoms some time ago but pulled out all right. He wasn't well last night and I wanted to keep him on the ground to-day. I was very foolish. Instead of arguing with him, I should have ordered him into the hospital this morning. But we'll pull him through all right. And you, young man," to Cole, "I've a lot to say to you—later. Talk about the blind leading the blind!"

"Save your breath, Captain," grinned Cole—the Cole of the old days. "Here's one blind man who can see."

Head up, shoulders back, he walked away. Lieutenant Stanley Cole had fought his fight and he had come back, come back triumphantly.

Interviewing Commander Byrd

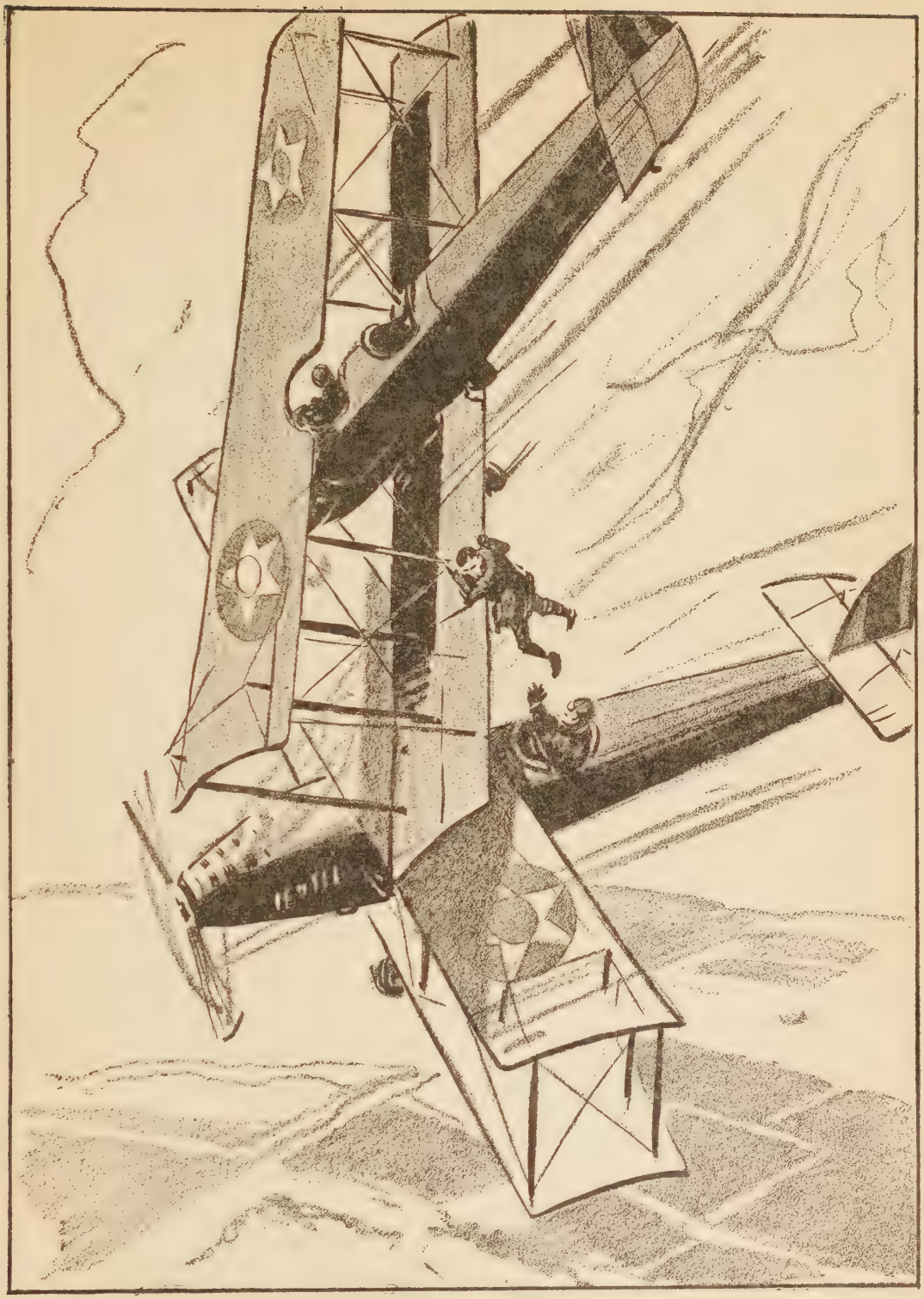
By Scout E. P. Churchill, Jr.

WHEN I left Tenafly, N. J., I never had any idea of interviewing Commander Byrd. I was not sent to the interview Byrd, but when a police captain told me I might sit in one of the vacant seats in the grand stand before City Hall, I thought I would write the story for the newspaper of the Boy Scout Camp of the North Bergen Company.

As I said I was able to get into the grand stand at City Hall. I wrote the doings there and then walked along Byrd's car, on the sidewalk, of course, in the rain to about five blocks of the Eternal Light. Those policemen said—you go no farther, but I managed to get a few blocks farther by more ways than one. Here I saw Byrd's car leave, and I followed it to the Hotel McAlpin. Here I was stopped by more police who would only let those with tickets enter the hotel. But those police forgot that there was more than one way to kill a cat, and more than one door to a hotel. A little walk around the block brought me to the 34th Street entrance. The fliers entered by the police-guarded 33rd Street entrance.

Here I wandered around trying to find where Byrd's rooms were. Believe it or not, several newspaper men asked me where the dinner Mr. Wanamaker was giving for the press men was—maybe it was my uniform. I found out from the last that Byrd was on the seventeenth floor.

Here I sat and sat. Newspaper men came in mobs, they saw Commander Byrd's representative. A little before seven Mrs. Byrd asked me to ask Commander Byrd for the key to her room—there were the men who will soon fly to Rome, in conference with Byrd, so she did not want to go in, but poor me, the talk flew so fast that I had no chance, and a shrill "Dick," from the hall got Mrs. Byrd the key. A few minutes later I met Commander Byrd. He came out of his room as the New York–Rome fliers left. He spoke to me and asked me what I wanted. I told him my purpose, and he promised me a minute although he was in a great hurry. In reply to my questions he said right away he considered a Scout the highest type of boy—the kind he would like to take on an Arctic trip. As quick as he was with the first question he spent a bit of thought when I told him the Aviation Merit Badge requirements, and asked him his opinion. These he also believed the best. As he seemed in such a hurry I asked no more questions, but got his autograph and shook hands with him. On the way out I met Bernt Balchen and got his autograph. He owns two hats now. He wore a felt one at the parade, and he had a straw one then.



The drumlike surface of the captain's plane was five feet from his reaching toes.

"I have my enemies," Kidd was saying.

Kidd in Shoal Waters

By Edwin Cole

Illustrated by John R. Neill

PIRATES were far from the mind of Abner Leete as he headed his sloop up for the turbulent waters of Plum Gut. He had spent two days in the Peconics, Big and Little, filling up with a cargo of round clams and that day had carried the ebb down by Shelter Island, counting on picking up the first of the flood through the Gut and up the sound.

The *Mercy L.*, in spite of her rocklike ballast of bivalves, had a slippery keel, and with a fresh southwesterly behind her she had sped eagerly on to the point where she might double back up-sound for home. Abner had seen the ship's sails marching over the low land of Orient Point as she neared the Gut from the Long Island Sound and had mistaken her for a peaceful trader. Now as she slid by the point and water opened up between them, he saw she was a sloop of war but too slovenly of appearance to be English.

She braced her yards for the Gut. Abner had timed the tide accurately and it was near slack water. So the usual chop that makes up in this deep and narrow passage had subsided to black and swirling eddies. The stranger came on with a white smother parting from weather-worn bows. It became apparent that the two vessels would pass midway of the Gut and within a cable's length of each other if they both held their present courses.

But when they were within speaking distance, a short wide figure stepped from beside the helmsman to the bulwark of the sloop-of-war and a big voice boomed out "What cargo!" Startled for the moment at the abruptness of the query, Abner gave no answer.

"Ahoy there! What cargo have you?" the big voice boomed again impatiently.

Then: "Clams; a holdful!" Abner roared back with an eye for business.

The squat man shrugged his shoulders as in disappointment; but then apparently he changed his mind, for he shouted:

"Come about and follow me through the Gut. I'll take them off your hands."

Even then the thought that these were pirates did not enter the fisherman's head. Many a peaceful trader boasted her Long Tom in those days and few pirates had the temerity to carry on their business so near the ports of New York and Boston with the English men-of-war so numerous about.

Here was a chance, reasoned Abner, to dispose of his catch at one stroke and return for another, thus escaping a long beat up-sound against the southerly winds. When the ship had cleared him, he put his helm down, came about and stood after her. She would not heave to in those narrow and treacherous waters he knew for lack of sea room. Once he had her over his bowsprit, he took satisfaction that in this breeze at least the *Mercy L.* had the legs of her, for she began at once to close in the distance between them.

And by the time the sloop of war was fairly out into Gardiner's Bay and had rounded to, the *Mercy L.* was close

aboard. Abner Leete put his helm down again and shot his craft into the wind and alongside the bigger vessel. A line was thrown him which he made fast and in that sheltered sea the two vessels rubbed sides with little harm to either.

His line fast, Abner looked up into a broad dour face over wide shoulders and a short neck.

If there was any question that this was the captain of the ship it was answered at once.

"Aboard there two or three of you with buckets and pass up those clams," the stocky man commanded. With alacrity three sailors clambered down the ship's side to the deck of the *Mercy L.*

But Abner was a Connecticut Yankee and a bargain had to be struck.

"There is the pay to be talked about first, Captain," he reminded the other. The stocky man above him waved his hand airily.

"I'll make no questions of that, once I like your goods," he answered.

Abner threw back the hatch-cover doubtfully. The three sailors were an ill-favored lot. Indeed they puzzled Abner. For while they wore clothes far above their station in kind and quality, they were none too clean and were sneering of manner and speech.

But Abner figured that it were better now to assume their honesty than dispute it. He got down into his fish-pit and passed up buckets loaded with his catch, checking them off the while. These the sailors passed up to their fellows on the ship's deck until Abner's hold was empty again.

Abner climbed out and put his hatch back on. The three men swarmed back to their own deck. The captain still overhung the rail. He was eyeing the young fisherman with amusement and made no move to pay.

"It's a tidy little vessel you have there, my man," he observed blandly.

"She is that," agreed Abner. "You owe me two pounds even."

"And how much might the little sloop be worth?" queried the captain easily.

"She is not for sale," answered Abner.

"No, but how much might she be worth?" persisted the other with good nature.

"Twenty-five pound would not buy her," answered Abner curtly.

"Twenty-five pound?" echoed the other in mock astonishment. "I would not have said so much by half. But you are the gainer. She is yours as the price of the clams." He turned away as though the deal was ended.

"Pay me for my clams, robber!' shouted Abner angrily.

The captain was back in a flash. Gone was the good nature. His eyes were hard as steel. Other faces overhung the bulwark and now Abner saw with a sinking heart that all these held the same expression—that of men who take without leave.

"'Tis a harsh word," said the captain ominously and slow. "And yet it is true," he added with a grim smile. "Now cast off, fisherman, before I change my mind and take your boat as well as your cargo."

Then Abner knew these men for what they were, robbers of the sea. He cast off. Above him the captain roared a string of commands. Abner trimmed his own sails as the ship fell off on her course to the south and east. Water opened between them and with every fathom of it grew the fisherman's relief. Aye, he was lucky to have the *Mercy L.* left to him by those pirates. Could this be Kidd about whom he had heard so much? But Kidd was half hero. He robbed the rich Indian men, not poor fishermen. And he wore fine raiment and had a belt full of pistols.

His ship was the great *Quadagh Merchant* that he had taken from the Grand Mogul—not this slatternly sloop of war.

Well, his clams were gone and he must go back and fill his hold again. These pirates had stolen his honest labor if they had left him his sloop.

But now the wind headed him and the tide had not come in enough to help. He stood over toward Orient Point on the larboard tack and once the water began to shoal and he was out of the swirl of the Gut, he dropped anchor and lowered the sloop's sails. He would wait here until the tide made more strongly up the bay and in the meantime a good meal might cheer him.

While frying fish sputtered in a pan and sent forth appetizing odors, Abner stood half in and half out of the companionway to the sloop's cabin and watched the pirate sails grow smaller.

Once well clear of Plum Island she had at first laid a course that would fetch Block. Now she had been brought more on the wind and was heading over toward Gardiner's. What was she up to, Abner wondered? No good purpose at least, he would warrant. Maybe her captain would send a boat ashore and levy toll on the island as he had on him. Then the fish gave evidence of being properly done and Abner descended to his meal.

He ate leisurely and enough. With a full stomach, somewhat of his chagrin disappeared. He would have the telling of it at least. Not every man could lay alongside a pirate and come away with his hide intact. He pushed his dishes aside. By this time the pirates should be down into the island.

The faint sound of a hail brought Abner to his feet. He thrust a head out of the companionway, fearful for the moment that the pirates had returned despite the fact that he knew they could not have made this speed. The sea was empty. The pirate ship had disappeared around a headland of the island.

"Ahoy the sloop!" came the cry more plainly. And then Abner Leete looked shoreward and found the author of it.

A man sat a horse on the beach at the edge of the water. He waved his hat as he saw Abner's gaze on him. Even at this distance he presented a fine figure. His horse drooped under him as though from a long and swift ride.

"Come ashore. I would have speech with you," the fine gentleman commanded.

Abner Leete stood stolidly watching him. He had experienced the whim of one stranger. He had no thought to try that of another.

"Send a boat in the King's name," came the imperious command.

Abner stirred uneasily. "In the King's name," but how was he to know it was in the King's name?

Nevertheless he drew his dinghy alongside the sloop and casting off the painter stepped aboard, for he was a lawful citizen and such a command must be obeyed.

Yet when he had backed his small boat within a short distance from the shore he rested on his oars just outside the break of the short seas. Here was a gentleman of wig and ruffles and fine apparel albeit these were stained with mud and flying lather from his poor beast's flanks. Moreover while this fine gentleman spoke with an air of authority, yet he had an honest face if an irate one.

"Saw you a sloop of war go through the Gut?" the gentleman demanded shortly.

"Aye, to my sorrow," Abner grinned ruefully.

"Why to your sorrow?" the other demanded impatiently.

"Only that he helped himself to my

cargo without paying me," answered Abner.

The rider's face lighted. "That would be, without doubt," he said half to himself, and then

"What was his course?"

There was no good reason why Abner should refuse this information.

"First he headed for Block Island and then he hauled his wind and stood in to Gardiner's," he answered.

"And where might Gardiner's be?" the other demanded.

Abner turned and pointed to the purple hills of the island across the bay.

The other gazed in the direction with eyes that sought to ferret out the distant sail.

"Think you she stopped then or held on?" he asked.

"Stopped, is my guess," answered Abner.

"Then we must follow her," said the rider slowly. "Bring your boat ashore."

Without so much as glancing to see if he was obeyed, the fine gentleman dismounted. First he removed a pair of saddlebags from the animal's lathered flanks and placed them carefully on the sand of the beach. Then he unloosened the saddle and threw this down beside the bags. Lastly he took the bridle from the horse's head and slapped the animal smartly on the flank. It ambled stiffly up to the marsh grass above the beach and, kneeling, rolled in the dry warm sand.

All this Abner had observed without action.

"Come, I am ready," said the gentleman hastily.

"Aye, but I'm not," drawled the fisherman.

The gentleman eyed him with disapproval.

"If it is the pay you need, have no fear," said the stranger.

"That is what the captain of the ship said," answered Abner, "until he had got my good cargo of fish safe in his hold."

The man on the beach shrugged his shoulders and took from an inside pocket a small bag. From this he poured into the palm of one hand bright pieces of gold that glittered in the light of the lowering sun.

"The price of your tub and better," he said with a note of contempt.

Abner shook his head.

"Of what good if that pirate takes me and the gold, too?"

The fine gentleman looked at Abner narrowly.

"Does the King's name mean nothing to you, dolt?"

Abner flushed angrily. "Words cost nothing. How am I to know you come in the King's name?"

The man on the beach flushed darkly.

"I see I must show you my credentials," he said. He bent over his saddle, fumbled for a moment and then straightened up. To Abner's dismay, he held a leveled pistol in either hand.

"These are they," he called quickly. "Now are you content?"

For a moment Abner stared at the round holes of those muzzles. They seemed large enough for one to crawl into. And it would be hard to miss at that distance. Yet Abner had his share of courage and of righteous anger. He bent to his oars.

One deep thrust he gave and then as the blades came out a pistol belched fire.

Abner thought at first it was his arm that had caught the bullet and then he saw that the lead had split one blade and it was but the jar of it he had felt.

"That was my target. Not your body, fellow. Now will you bring your boat ashore?" came the voice from the beach.

White with anger Abner backed his small boat through the small seas to the beach and grounded it.

"That is better," said the other coolly. He held the loaded pistol in his right hand.

With the other he waved to his saddle and bridle and bags.

"You may put them in the boat and hurry, for you have wasted precious time."

Sullenly Abner Leete did as he was directed. He placed the equipment in the bow and took his seat again at the oars. The stranger thrust off, and in spite of the cracked oar, they were shortly aboard the sloop.

Not before Abner had had opportunity to study this stranger, however, for they sat within a few feet of one another. The gentleman had a narrow well-cut face with eyes that bore out Abner's first estimate of honesty. They were no doubt capable of expressing friendliness, but the late affair had chased any such away. The chin was square and the nose arched. As for age, Abner judged him to be not far from his own, which was in the twenties. No words were wasted between them, for the one was proud and the other stubborn, that being Abner. He brought the small boat smartly alongside the sloop and the stranger stepped lightly aboard.

Abner was as tense as a bowstring. Slow to anger, the cavalier treatment he had received that day had set every corpuscle of roundhead blood aboiling. He made fast the small boat's painter and threw the saddle and bridle on the deck.

"Have a care with those bags," said the stranger angrily as Abner was about to heave them after. The fine gentleman stood precariously on the narrow afterdeck of the sloop. Abner Leete's temper broke all restraint, overleaped all fear of the remaining bullet. With all the strength of his good right arm, he hurled the bags at their owner.

A cry of astonishment and alarm, the pop of the pistol in the air and the splash of the stranger's body in the sea followed closely one after the other. Abner sprang to the deck of his craft exultantly as the stranger came to the surface of the sea.

"Now swim back whence you came!" he shouted fiercely.

The stranger gave him look for look; but there was something besides in his glance—despair. He pawed wildly about him and sank again. Abner's exultation changed to perplexity. The man could not swim!

More slowly his head appeared out of the sea again. The very desperateness of his struggles pulled him down. Then he shot a grim glance at Abner.

"You—win!" he gasped and went under again.

Then Abner launched his long body from the counter and cleft the sea. Through the blur of salt water he saw his late enemy and brought him to the surface. The stranger grasped him. Maybe he thought Abner had come to make sure of his vengeance. More likely it was the instinct to save himself. Down they both went again and Abner made no haste to come up for he was long of wind and the other was near spent. When they did come to the surface, all fight was gone from the other and Abner himself was blowing.

He seized the other by his dampened hair and fought the tide to the small boat, which had drifted out to the length of its painter. A minute of rest and Abner had climbed aboard this and pulled his half-drowned captive after. Thence he got him aboard the sloop, and here in the wide cockpit he drained the water from him and brought him back to life until presently the other sat up weak and sick, eyeing Abner strangely.

"You—saved my life," he said wonderingly.

"Aye. After first near taking it," Abner grunted. There was nothing to fear in the other now. His pistols were gone and he was no match in strength for the fisherman.

"When you recover, I'll put you ashore."

The other eyed him steadily. "Unless I mistake my man," he answered slowly, "you will do nothing of the kind."

Abner frowned. "And why not?" he demanded with a curiosity he could afford in view of the other's helpless condition.

"Because I said the truth when I told you I was on the King's errand," he replied patiently. "That one who maltreated you is the pirate, Kidd. He is on his way to Boston to yield himself up in hope of pardon. But before that he will hide his loot. It is my errand—and yours—to learn where."

Abner eyed the stranger suspiciously. "And how comes it you know all this?" he demanded shrewdly.

"His ship has been at anchor in Oyster Bay. His messenger has been in New York. That messenger I was assigned to follow and the ship in its course up the Sound when, his messenger aboard, he set sail."

There was truth in the stranger's eyes that made his words ring true.

But Abner hesitated. He had little more than his sloop and his sloop was his livelihood. Once this was lost he had not the wherewithal to purchase another.

The other read his thoughts. "I will pay you well, if we fail," he said. "And if we win," he added slowly, "the reward is one-tenth of what is recovered."

"And if Kidd takes us—?" queried Abner grimly.

Again came that sharp shrug of the shoulders.

"I had taken you for a man of more spirit," was all the stranger said.

But it was enough. Abner flushed. "It is a bargain," he answered, "for I have a score of my own to settle."

Presently, anchor up and sails hoisted, the *Mercy L.* stood out into the bay toward the distant island.

Now the wind fell light and the tide flooded strongly against them. Night had fallen as they neared the island. In the lee of this the wind deserted entirely and to hold their own against the tide, Abner had to lower sail and drop anchor.

No sign had there been of the pirate vessel, but that was not strange, for the high shores hid what was around the point.

"We must go on in the small boat," said the stranger decisively, and Abner, his sloop safe in this lee, agreed. He wrapped cloths around the oars at the locks to deaden the sound and the two set out following the line of the shore.

But when they had come near the point, Abner pulled in to the beach.

"Better to cross afoot than to take the chance of the boat being seen," he argued. To this his companion agreed.

They landed on a white beach and pulled the small boat out of the reach of the tide. Then up through sand and close-growing cedars, they climbed to the crest of the island.

They had their reward, for below them, in a little harbor, they made out a dark hull with a single light aboard it. Speering aloft were the masts of a ship.

Abner's companion exclaimed in satisfaction. "A good day's work," he said; "but we must get closer to be sure."

So they made their way down hill now through the scented cedars until they came suddenly upon a clearing, and in the center of this, looking out on the sea, a house with lighted windows.

Abner had never set foot on this island before, although he had sailed along its shores, nor had he known of the house. As for his companion, he had never so much as heard of the island, it seemed.

"I wish we had your pistols now," whispered Abner ruefully.

"Yes, and no," answered his companion. "My orders are to spy upon this fellow, Kidd, not to pistol him, although that

might be done in self-defense. Come," he added, "you have seen him on his ship and I have not. We will creep close to the windows and make sure of him."

Crouching, often on hands and knees, the two stole across the clearing to the nearest lighted window of the house. An unfurnished room of cedar logs met their gaze. In one corner blazed a fire, for a coolness swept in off the sea. A tall candle sat in its holder on a table. Beside it stood a squat bottle and glasses and, toasting their shins at the fire, sat two men. Abner nudged his companion, for one of them was the captain of the sloop of war.

And now Abner heard the rumble of the familiar voice through a broken pane. It was different in tone than he had last heard it, to be sure, suave and bland.

"I have my enemies," Kidd was saying. "What good man has not? They call me pirate, those that sent me out to do this thing. But my fault is that I am not pirate enough. I have not taken enough gold to meet their fancy."

He threw a sharp glance about the room and the two men at the window shrank back for fear he had become aware of their presence. But it seemed he had not. He bent nearer his companion and the listeners had to strain to catch his words.

"I needs must have an anchor to windward," he went on. "My liberty, perhaps my life, hinges upon it. Once my enemies have all my gold then my neck becomes brittle indeed. But when the head knows where the treasure is, more care is taken of the neck that supports it," grimly. Then slowly, "I would leave with you, my friend, something of this treasure in safe keeping."

And now Kidd's eyes were on the other's as though boring into his very soul. This man, an honest islander to all appearances, had the air of one under a charm. He stared back at Kidd a bit wildly and then nodded his head. "I will hold it in trust for you," he said.

Captain Kidd slapped him heartily on the knee. "Then the quicker the better," he exclaimed and he got to his feet.

Abner did not need the tug at his arm the other gave him. It was time they were going. Crouching they ran for the shelter of the cedars and were barely within the darkness when a door opened and Kidd stepped forth in the light and made his way down toward the shore.

"Well, what now?" demanded Abner.

"Escape. Nothing more," said the other gleefully. "This islander will yield his secret at the proper time and with the proper argument. It remains for us to get safely back with the news."

Abner would rather have waited to see the treasure in substance, but the other was a soldier. He must carry out his orders to the letter. So they made their way back to the leeward side of the island and, finding their small boat, got aboard the sloop. Still the sea was windless, but with the return of the flood in the small hours of the morning, came the wind from the East. They raised the anchor and hoisted sail. By daybreak they were clear of the island and nearing the Gut. It was just as well, concluded Abner, for moving slowly out from the island were the distant sails of the ship.

There is little more to the tale. Of all the gold that the pirate Kidd concealed, none is known to have been found save that he left on Gardiner's Island. That this would not have been recovered save through the efforts of Abner and his companion, the governor's special agent, is evidenced by the generous reward that came to Abner Leete as his share. If it was no fortune, it was yet enough to make the fisherman ponder for many a day upon how present adversity may mean future good fortune.

How to Build a Bull-Boat...

By Dan Beard

Illustrated by the Author

AT the jumping-off place, where Third Street ended on the bank of the river, it was the habit of the ash carts to dump their loads down the bank. The top of the bank was a favorite meeting place for the river rabbits.

Sandy Bar was seated on the edge of the dump, gazing at the river, when Lerdum, the Congressman's son, discovered him. Although Lerdum loved to play with Sandy and Monkey, and also loved to indulge in all the excursions and adventures planned by these boys, he nevertheless did not like to soil his clothes. Therefore, he found himself the tin top of an old wash boiler, which he carefully dusted and placed alongside of Sandy. Spreading a neat, white handkerchief over it, he seated himself, and gazed at the river.

The river was something worth looking at. Somewhere back in the interior of Kentucky, there had been a cloudburst which emptied a great lot of water into the Licking River, but nowhere up around the source of the Ohio in Pennsylvania had there been any rains. Consequently the Ohio was low and its tributary high. This condition made a swiftly flowing torrent of the otherwise sluggish Licking River. Down the yellow stream of liquid mud all manner of things were whirling.

"Gee whiz, but look how it's booming," cried Sandy. "My eyes, look at all the yellow pumpkins and sugar-water troughs, and see! there comes a good dugout canoe. Let's go down to the bank. Maybe we can catch something."

At that moment Monkey Shoals hove into sight. He had an old yarn sock tied around his neck, which held a piece of fat pork in place. One foot was also tied up in a dirty white cloth, through which protruded the edge of a piece of fat bacon.

"Land of Goshen, here comes the ambulance train and all the wounded from the battle of Bull Run," cried Sandy. Lerdum stood up, shook out his handkerchief, carefully folded it, and placed it in his pocket, all the time looking Monkey over from head to foot in a critical manner.

"Who you looking at?"

"You."

"Ah, dry up and bust and blow away. If I looked like you I'd go crawling in a millinery store window and sit there with the ribbons and things. You're too pretty to kiss."

"Well, you're not very pretty. Why don't you use a clean stocking for your neck? What on earth you got a stocking tied around your neck for, anyhow?"

"Sore throat, you dumbhead. Don't you know that an old yarn sock and a piece of pork will cure a quinzy sore throat? Gee, you're ignerent."

"That's all right. I may be ignorant, but have you got the quinzy in that foot, too?"

"No, I h'ain't. I got a rusty nail in my foot. And you need not be so funny about it, either. That piece of bacon is there to draw the poison out, because I am in great danger of lockjaw. I might have lockjaw any minute. I might have it right

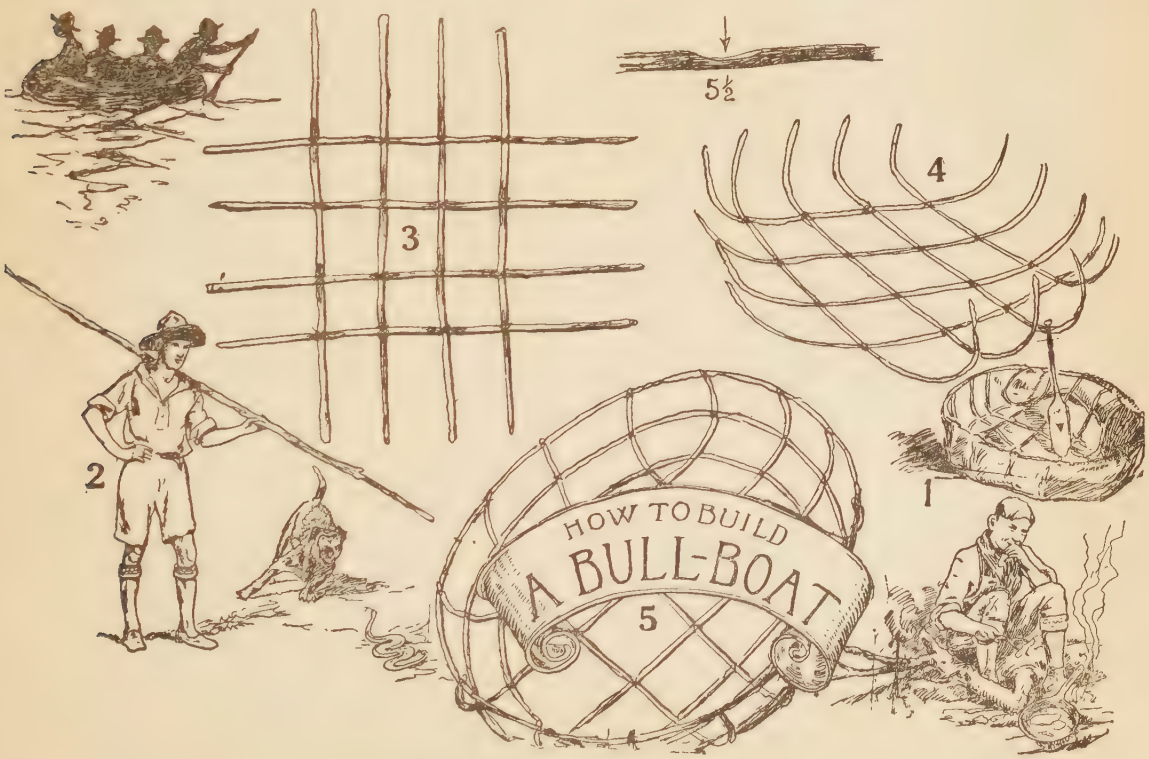
now," Monkey replied impressively, as he gazed at his bandaged foot with all the pride a soldier might have in gazing at a congressional medal on his uniform.

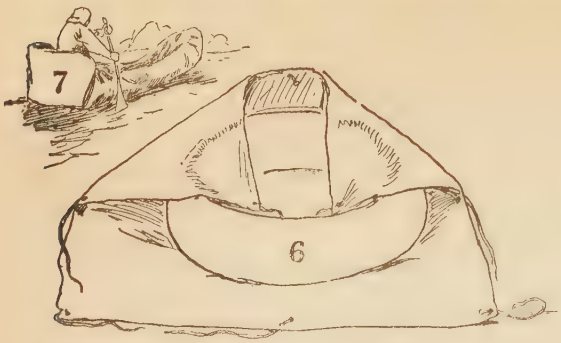
"Please don't get the lockjaw right now, Monkey," pleaded Sandy Bar, seriously. "Just look at the Licking, how she's booming. Let's go down to the shore. Maybe we can catch something, besides a quinzy sore throat."

"Shucks, we'rall three blockheads, we'll catch some fish, that's what we'll catch," cried Monkey. "Fish can't see in that mud and they are all near shore hunting clean water to breathe."

Immediately forgetting his sore throat and the imminent danger of lockjaw from his foot, Monkey dashed up the street. In a few minutes he came back bearing an old clothes basket with a rope tied to each handle. Then all three boys ran down to the water's edge. Taking the clothes basket, one boy holding each handle, and giving it a swing, they threw it as far out in the stream as their strength would permit, and then hauled it in. Soon they had enough fish of a variety called by the boys paper-mouthed bass, to give each one a plentiful supply.

After these were divided and strung on willow wands, they sat on the bank and watched with awe the destruction going on in front of them. Great coal barges came rushing down the stream, loaded to the top with tons and tons of coal. These scow-shaped barges bumped into each other, smashing the ends and letting in the water. This caused one end to sink, the great barges to rear up on end, and disappear beneath the flood. On the opposite side of the river, almost within a stone's throw of the boys, was a beautiful steam-





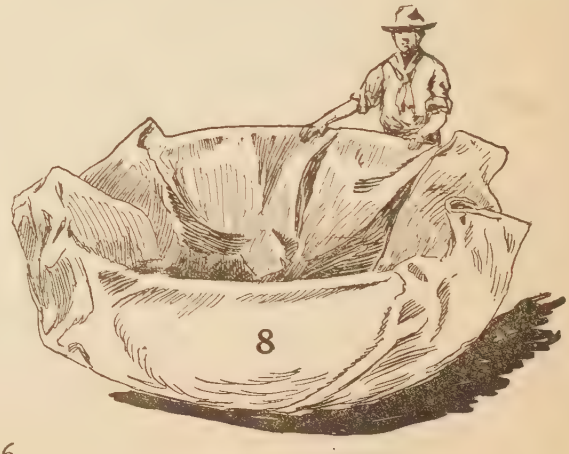
boat. One of the coal barges, rushing down the stream, struck the steamer's hull with the sharp corner of its square bow right by the cutwater, then plowed along the whole length of its hull to the stern, ripping off part of the wheel box.

Apparently this opened a seam in the steamboat because the latter immediately began to list. Men ran aboard and attached big cables to the safe in the office on the second deck; and grabbed all such things as they could lay their hands on, and carried them ashore. The steamer tilted more and more towards the center of the stream until the tall smoke-stacks came down with a crash into the water. Then the pilot house slid off, and before the boat itself turned on its side and went to pieces, the safe being fastened with heavy cables, broke right through the light woodwork and was landed on the shore. The great Bell broke from its bearings and disappeared; the spot was marked by the boys. As far as we know, the Bell still lies there in the mud of Licking River opposite the foot of Third Street. In not more than twenty minutes' time there was no sign of the stately steamer.

A moment after a towboat came along. A towboat is a small stern wheel steamer, used on inland streams as a tugboat as in the eastern harbors. The towboat had no steam up and it was soon capsized by a raging, plunging coal barge, and rolled over and over into the Ohio River, where it sank.

"Ma was right," said Monkey. "She told me not to try to catch anything but fish. Ma knows. She always knows. Funny how she knows everything, and she never was a boy herself, either. Mother went to school a long time and she learned lots of things, but she don't know all about the Indians because I asked her once't what a bull-boat was and she tole me it was a bird! I thought she was crazy, but she showed me in a book. It really was a bird like a whip-poor-will. Then I noticed that it wasn't spelled bull-boat in the book, but was spelled bull-bat, so she was pretty near right even that time. Ma could not help me when I wanted to build a bull-boat, but she showed me a picture of one in her old Geography. I'm mighty glad school begins Monday, there's a heap o' things I wanter learn this season. Say, we ain't River Rats, we'uns got ter know things. River Rats don't know nothing and I reckon that's the reason they are so awful mean, they don't even know enough to let us alone. I really would like to know how a bull-boat is made. I read about the Indians crossing the Missouri in bull-boats, but I don't know the difference between a bull-boat and a cow-boat."

Sandy Bar rubbed his freckled nose and



scratched his frowzy head in deep thought, then he said, "They must be made out of bull buffalo skins, but I don't know how they skin 'em so that they can blow up the skins."

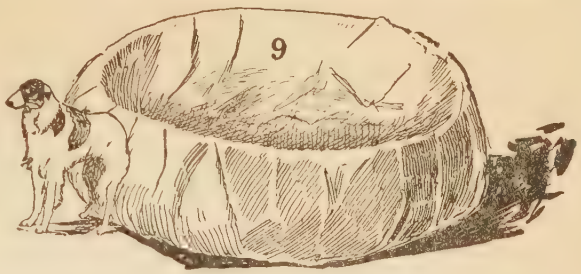
Although the writer had a general idea of their appearance, he did not himself know how a bull-boat was built, until he cut the trail of the famous Scout Yellowstone Kelly, who showed him the details of the construction of this unwieldy, but nevertheless useful craft. For almost forty years the writer has kept these notes, which he had filed away for you boys, although he must own up that he did not know, at that time, that he had filed them away for any such purpose.

A bull-boat * (Fig. 1) might be called a bowl-boat. It is simply a framework made of poles (Fig. 2) lashed together, basket fashion (Fig. 3), bent up at the ends as in Fig. 4 and bound to hoops made of saplings as shown in Fig. 5. The poles should not be too thick and heavy, not as thick as the one shown in Fig. 2. In case they cannot be bent without breaking, a place may be cut neatly at the bending point (Fig. 5½) so that they will bend without fracture.

Any chump should be able to make the rude basket shown in Fig. 5, binding the joints together with twine, if he has it, and with string made of twisted bark, if no twine is available.

Arctic explorers were formerly wont to tote great heavy boats over the ice in order to use them where water interrupted their voyage. But my old friend, the late Andrew J. Stone, took with him on one of his trips a piece of light water-proof fabric presented to him by Colonel David Abercrombie.

Jack Stone used the fabric as a tent, as a



tarpaulin, and when he had water to cross, he covered a framework made of willows with the water-proof cloth, tied it on with strings, and crossed in safety. Since then, in the Arctics the explorers cover their sleds (Fig. 7) with a tarpaulin and with this strange canoe they cross with comfort open stretches in the Arctic seas (Fig. 7).

Now, then, we have talked enough; take your framework, the basket details of which I have omitted for simplicity's sake in the diagram (Fig. 6), place it upon the center of your water-proof tent cloth, fold the corners over as in Fig. 6 until the four are all folded in as in Fig. 8. Then fold in the other parts and lace them all to the frame as in Fig. 9. When that is done you have a bull-boat, a boat that any chump can build, but one in which freight and passengers may be ferried across open stretches of water, although it is no good for a racing boat!

The bull-boat is paddled by the person in front, if there is such a place in a round boat; that is, one person paddles toward himself as in the sketch at the left-hand corner near Fig. 3.

A bull-boat 18 inches high and 16 inches in diameter will bear in safety seven full-grown Indians across the muddy Missouri River. That means, I suppose, that it might hold with safety one and one-half boys, for Indians will not rock the boat like boys do, you know.

* Bull-boat from Fort Buford Tak Ter Grosventre tribe Indians.

Cap'n Bolo's Earrings

By Russell Gordon Carter

IF old Cap'n Bolo, the Portuguese, wasn't a pirate he should have been one, for he surely looked the part. Bare feet, loose black trousers held up by a red sash, blue shirt open at the throat, a face of leather criss-crossed with seams and scars and wrinkles and covered with a stubbly gray bead, a big curved nose, a wide mouth, iron-gray hair that swept his shoulders, and two black little eyes like a couple of polished shoe buttons on a fur rug—there you are; shake hands with Cap'n Bolo. Yes, there you are, except for one thing—the Captain's gold earrings. Some one aboard the *Limping Dove* had stolen them.

The old man looked across the ship's cabin at Dave Nash and Hudson McRea. "Had 'em a minute ago!" he cried in his shrill voice.

"Listen to that! Listen to that!"

If he wasn't a pirate he should have been one

Dave and Hudson grinned at the Captain's parrot, which, perched on the back of a chair, had just put his two cents into the matter.

"They're stolen!" cried the Captain, bringing his bony hand down on his knee.

"Stolen!" echoed the parrot. "Find Zanzibar!"

Cap'n Bolo whirled. "Zanzibar? Ye say Zanzibar took 'em, Uncle Gabriel?"

"Zanzibar!" repeated the parrot and then winked solemnly at the two boys.

In a flash the old Captain was out of the cabin. Dave and Hudson, both suddenly grave, followed him. "My land," whispered Dave, "Zanzibar was in here only five minutes ago. If he took 'em, the Cap'n will just about kill him!"

"Good night!" said Hudson. "I hope he didn't."

On deck the two boys paused. Except for the Captain's shrill voice for'ard the day was still—yes, still and blue and hot. The waters of the Caribbean shimmered and sparkled in dead calm the gray, spotted canvas of the sails hung like great folded curtains; tar bubbled and oozed from every crack in the schooner's deck. It was a day to lie in the shade and sleep, if you could—and Cap'n Bolo had lost his earrings!

In a few minutes the old man reappeared, followed by the less important members of the crew—Zanzibar, the Lascar; Hop Slop, the Chinese cook; Argonne Johnson, a negro who had fought the War as a stevedore at Brest; Murphy Duffy, the two-fisted mate; Nils Erickson,

the Viking; and a scrawny no-account little man with a dirty face. The important members were already on hand; there were Zanzibar's three cats, Christopher, Girard and Elmer, with their heads together as usual near the fish-box; Nero, the boys' brindle bulldog; Papa Joffre, the negro's red rooster swaying from side to side even though the vessel was perfectly still; and Uncle Gabriel, now perched on one foot on the captain's shoulder. With such a crew, is it any wonder the *Dove* limped?

"Now, men," Cap'n Bolo began, and his thin lips parted over his yellow teeth, "me, I've lost something!"

"Listen to that!" screamed Gabriel.

Zanzibar scowled at the bird; there had been a great deal of love spilled between the two ever since the *Dove* had limped out of Rio a month before. Unconsciously Uncle Gabriel's head jerked sidewise as he remembered the box on the ear the Lascar had given him one day while the Captain was ashore. The Lascar glanced down at the scar on the back of his dirty hand that the parrot had presented him with one day when the Captain wasn't ashore.

"I've lost something," continued Cap'n Bolo, looking straight at Zanzibar, "a pair of earrings, and I'm going to have 'em back! Who's got 'em?"

"Zanzibar!" shrieked the parrot and then because he hated anything that belonged to the Lascar turned toward the three cats and added for spite, "Scat!"

All three jumped apart and then settled back slowly into conference. At another time it would have been funny, but this was a serious occasion. Everyone knew how the old man prized those earrings, the gift of a certain dusky queen in the South Seas; and every one knew what a bewhiskered Tartar he was when roused.

"Zanzibar," said the captain, "you were in my cabin just before I missed 'em. I 'spect you took 'em!"

All eyes were on the Lascar, dark and silent and villainous-looking. The mate advanced a step and, clenching his two fists, glanced inquiringly at the Captain; whereupon Argonne and Hop Slop backed away, and the negro rolled his big eyes, though from the way his fingers were twitching you might have thought he wanted to roll something not quite so round.

Nils scratched his shaggy blond head and produced—an idea. "Cap'n," he said, wrinkling his heavy brow, "a bird now—he bane no evidence—never."

"Sea lawyer!" cried Uncle Gabriel.

Cap'n Bolo glanced at the fellow and then turned back to the Lascar. "Search him," he ordered—and Murphy Duffy grinned.

But a search—a quick one because of Zanzibar's scant apparel—revealed only a knife, and the mate scowled in disappointment. "Like as not now, Cap'n," he said, "the spalpeen's hid 'em somewhere."

"In his shoe mebbe," Argonne whispered to Hop Slop, though how he had arrived at that conclusion is hard to say; the Lascar never had worn a shoe in his life. Hop Slop grinned and winked at the two boys; he came from a long line of fun-loving ancestors.

"See here, Zanzibar," said the Captain, "have you got 'em hid?"

"No," replied the Lascar, which was half the extent of his English.

"Well, then," Dave exclaimed suddenly, "will you help hunt for them?"

"Yas." And that was the other half.

"One moment," said Cap'n Bolo; "the lad is right. We'll all hunt. But I want to warn ye all here and now, *if ye don't find 'em, the ship stays right where she is. We'll not put into N'Orleans without 'em!*"

Argonne looked crestfallen; his long fingers were still twitching nervously.

"One thing more," continued the Captain, "if we don't find 'em, Zanzibar takes —what's comin'—to him!" The old man pronounced the last words slowly, ominously.

Nils muttered something about the "thing not being legal," though he made sure this time that neither the parrot nor the Portuguese heard him. Like the rest of the crew, he was a bit afraid of both birds.

Meanwhile, Hop Slop, who had been scrutinizing the parrot keenly, suddenly poked Argonne in the ribs and shook with silent mirth. Hop Slop enjoyed a joke more than he enjoyed fan tan or chop suey; but what was he laughing at?

"What you-all grin like dat fo'?" demanded Argonne. "You' funnybone must itch you somethin' scan'lous!"

"Polly-birdie, me laffee at him."

"Death!" shrieked the parrot, and the negro's eyes were a study in black and white. "Polly-birdie," he repeated. "How come?"

The search that followed was something that the two boys never would forget. It began with the cabin. Cap'n Bolo led the way, and all the crew, including the dog, the cats, and the rooster, followed. And wasn't it hot, though! Argonne confided to Hop Slop that it was almost as hot as on the day his company had captured Montfaucon. They looked in all the bunks, and Nero tried to bite his initials impartially in every pillow. They looked in the sea chests, and the three cats, which loved to snoop outside conference hours, got inside and almost lost their tails when the lids fell. They examined the table and the carpet on the floor, and Argonne's rooster crowed too soon at least seven times.

"That bird won't crow any more," said Hudson, "if he doesn't keep from under Argonne's feet."

"Look out, Zanzibar!" cried Dave as Uncle Gabriel made a slash at the fellow.

The Lascar jumped away and scowled first at the parrot and then at Hop Slop, who was shaking all over like a big mound of lemon jelly.

"Outside!" said Cap'n Bolo at last.

"Outside!" shrieked the parrot just to show that the Captain meant what he had said. And then "Scat!" he hissed again, and Hop Slop squeaked with laughter as Christopher, Girard, and Elmer jumped a foot off the floor.

On deck again, the Captain chose a coil of rope and sat down in the shade; the parrot hopped to his shoulder and, by standing on one foot, tried to make people think he was a stork. The search on the high seas continued. Hot, oh, my! The heat waves rose in layers above the blistering deck. The odor of tar and creosote and hemp hung over and round the vessel, and the glare of the sun on the water was blinding. It was too much for the cats; they soon gave up hunting and went into conference beside the fishbox to make sure that at least no one would steal the fish. It was too much for Papa Joffre; he stepped gingerly across the deck as if he feared he might slip on the tar and be fried alive. Finally he flew to the top of the fish box, where with eyes closed he swayed slowly from side to side. And it was too much for the sailor with the dirty face; once out of the Captain's sight, he lay down with his head on a bag that had contained coal—which didn't help his face any.

But the rest of the crew, with Nero in the lead, continued to hunt, and a big white gull that had settled on the masthead screamed encouragement. From stem to stern they went under the fierce blazing sun, and all the while Hop Slop chuckled to himself.

"Watch that Chink," whispered Dave. "He knows something, all right. Do you suppose he's got the earrings?"

"Wouldn't be surprised," said Hudson. "Look at him now. What's he up to?"

The cook had made his way to the fo'castle, where he paused. "All gone!" he cried—that was as near as he could come to the negro's name. "Come here fastly!"

And as Argonne and the rest hastened to join him, he said: "Me havee idea. Learrings might fallee in dlink. No goodee hunt for them. No?"

"Yas," said the Lascar—which left every one a bit bewildered.

"Say, Moon Face," roared Murphy, "if you don't have any better ideas than that, keep that slit o' yours shut! The earrings didn't fall overboard! They're here somewhere!"

The Chinese glanced round elaborately and then, shaking his head sadly, mopped his brow. "No see um," he said.

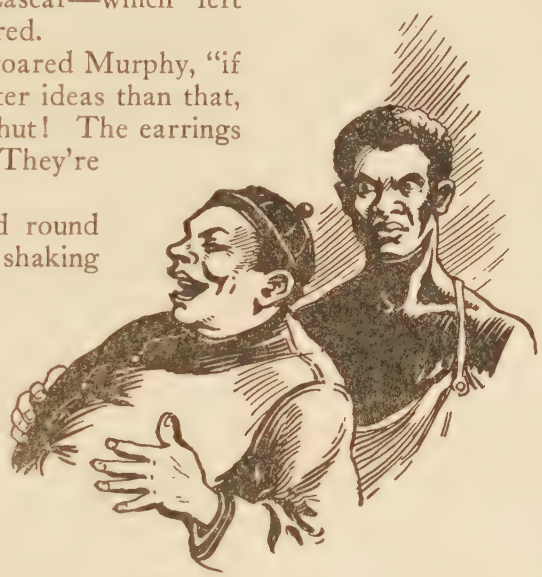
A few minutes later Nero spied the gull on the masthead and then, sitting down near the pin-table, raised his head and howled, as if he knew the bird had the jewelry safe under his wing. For the next half hour he continued to howl as if Rome were blazing. Nero had fiddled away enough time in fruitless search; now that he had treed a gull he meant to stick to his post and not let the bird come down. Instead, however, he stuck to the deck, and it was all that Dave and Hudson could do to pry him from the oozing tar.

"Hot doggie!" said Hop Slop. "Now he gottee something to howl for."

What with the howling of the dog, the screaming of the gull, the occasional shrill nonsense from Uncle Gabriel and the heat of the sun, the deck of the *Limping Dove* was anything but a quiet sector. No wonder Argonne frequently mumbled to himself about "going over the top" and longed for the cool trenches of northern France—which he had seen only in the New Orleans newspapers.

It was a sweltering, sweating, angry crew that trooped forward at the end of a long, vain search.

"The gang's all here—even Dirty Face!" cried the parrot.



"What you-all grin like dat fo'!"

Cap'n Bolo glanced up from whetting his case knife on his belt. What a fierce-looking old sea dog he was at that moment! No wonder the men were silent before him. His black eyes were blazing, and his mouth was a hard straight line. "Well!" he hissed, and the word seemed to shoot forth like a high-powered bullet.

A moment of silence, and then Murphy Duffy mopped his forehead and replied, "Cap'n, sir, we've searched the *Dove* inside and out, and we can't find 'em."

The Captain tried the keen blade of his knife on his thumb and glared at the Lascar. "Zanzibar," he cried, "me, I give you one more chance! Confess or—" He paused impressively.

And then Nils took his courage by the back of the neck. "Cap'n," he said, "some of us, like me an' Argonne an' Dirty Face an' Hop Slop, think Zanzibar ain't never

took the earrings. We think maybe they bane fall overboard."

The old man sprang fiercely to his feet, and his face was dark with rage. "You take sides with Zanzibar, do you!"

"Mutiny!" screamed Uncle Gabriel. "Mutiny! Where did I put my hat?"

Indeed at the moment it did look as if there might be something worse than mutiny, for the old Captain was advancing slowly toward the group.

And just then Dave found an idea that saved the day, hot as it was. "Cap'n Bolo," he said, "wait a minute. Hudson and I are only cabin boys, but we're Americans, you know, and we like to see fair play. Here's what I suggest. Give Zanzibar a fair and square trial——"

"Another sea liar!" screamed the parrot.

"A fair trial," continued Dave. "I'll be counsel for your side, Cap'n, and Hudson will be counsel for the Lascar. Let Hop Slop be the judge."

"A bright lad," said Murphy enthusiastically.

"Fair an' legal!" exclaimed Nils with a furtive glance at the parrot.

The rest of the crew nodded approval—all except the Lascar, who wasn't quite sure what it was all about. The old man hesitated. At heart he liked to see justice done; moreover, he was fond of the two boys. At last he said: "A'right. We'll hold a trial."

So there in the Caribbean, on the deck aft of the cabin, the strangest court in the world went into session. Hop Slop, the Celestial, got as close to the sky as possible by squatting cross-legged on top of the cabin. The Lascar, looking more villainous than ever, stood with drooping shoulders in the center of the deck below. Cap'n Bolo and Dave sat on a coil of rope at the left, and Nils and Hudson sat on a box at the right. Between them and a little way back sat the jury—Murphy Duffy, Argonne and the man with the dirty face. Behind Hop Slop the rooster was still swaying from side to side, sound asleep. Nero, close to the negro's feet, was biting tar from his tail, and the three cats were still in secret conference near the fish box. Uncle Gabriel flew to the boom overhead and, still on one foot, made insulting remarks at Zanzibar and the three cats. It was a colorful scene.

Hop Slop struck the roof of the cabin several times with his left sandal. "Silence in the courtee room!" he squeaked.

"Say, where does the Chink get that stuff?" inquired the parrot mildly.

"Plisoner," continued the judge, "he chargee with stealee captain's learrings. How he plead? Guilty or not?"

"Noo," said the Lascar, at a word from Hudson.

"Belly well," continued Hop Slop. "Go to it—Marquis of Queensberry rulee."

And then the fun began. Dave sprang to his feet and gave the evidence for the prosecution. At twenty minutes to eleven that morning Zanzibar had entered the Captain's cabin with fresh water. Five minutes after he had gone out the Captain had missed his earrings, which he had been about to polish. No one else had been inside the cabin all morning, except the two boys and of course the parrot. "Gentlemen of the jury," Dave concluded, "you have heard. Who took the earrings? Would you accuse me? Would you accuse McRea? Gentlemen, there is only one conclusion: the thief is there before you—Zanzibar, the Lascar!"

"Ha!" said the Captain approvingly.

A moment of silence, and then Argonne whispered sorrowfully: "It sho do look bad fo' poor Zanzy!"

"Scat!" shrilled the parrot, and the three cats sprang apart and then went abruptly into conference again.

At that moment Papa Joffre swayed too far to port and toppled over on his side. "Ma land!" said Argonne, but Hop Slop rapped smartly with his sandal. "Silence in the courtee room!" he demanded, though there were suspicious wrinkles about his eyes. "Counsel for deflence."

Then Hudson rose and spoke for the Lascar. Zanzibar had been in the cabin, it is true, but no one had seen him take the earrings. Might they not have dropped into some unseen crack? Anyway the evidence was only circumstantial. "Gentlemen of the jury," he said, "what if you should convict this poor man when he is innocent? What if he should be punished —beaten, put in irons—and then someone should find the earrings afterward? What an injustice that would be! Gentlemen, I appeal to your hearts; would you see a fellow sailor suffer for what he has not done?"

As he sat down Argonne whispered: "Mebbe so; mebbe so."

Then Hop Slop rapped for order. "Allee over now," he said. "Gentlemen of the jewelry must say."

"Scat!" cried the parrot, who was neither gentleman nor juror, and the conference was interrupted again, though not for long.

Then the trial approached a climax. The jury retired behind the mast, and, like the cats, went into conference. The man with the dirty face was for acquittal; he was tired, he said, and he needed sleep. What he needed most, though, was a wash rag. Murphy Duffy was for conviction; he'd made up his mind long before the trial, he said. The negro didn't know what he was for. "Ah jus' cain't make up ma mind," he said. "Mebbe Zanzy took 'em; mebbe he didn't. The trial's got me all mixed up."

And all the while the sun blazed down unmercifully, and the court room was hot and uncomfortable, as most court rooms are. And Hop Slop nodded and grinned like a Chinese idol, and the rooster swayed from side to side like the pendulum of a cuckoo clock.

Three times the jury came back only to go out again because Argonne just couldn't make up his mind. Cap'n Bolo's temper was rising, and he had taken once more to whetting his knife. Dave and Hudson were worried. So was Nero, though not over the fate of Zanzibar; there were still several ounces of tar fast to his tail.

"Scat!" cried Gabriel just to soothe matters, but this time the cats didn't move; they were becoming used to it.

"Scat!" repeated the bird. "Here, kitty, kitty—*Scat!*"

Then as the conference continued uninterrupted he began to hop along the boom toward the fish box. The two boys watched him curiously. When he was just above the cats he stopped and, holding out one foot, let something drop—something that gleamed like two splashes of fire under the blue Caribbean sky—Cap'n Bolo's earrings. One of them struck Elmer on the nose; the other landed on Christopher's head and, bounding sidewise, struck Girard right between the whiskers. A good banking shot, Gabriel!

"My earrings!" cried the captain, and in a flash had them in his hands. "Blast that red an' green bird o' mine! He had 'em all the time!"

"Linnocent!" pronounced Hop Slop solemnly and climbed down from his perch.

"Ma goodness!" said Argonne. "Ain't dat a lucky thing now. Ah never could of made up ma mind. It's like one time near Montfaucon——"

But the old Captain had grasped the Lascar by the hand and was saying: "You —you're a lucky fellow now. You might have been hanged fer a parrot!" He even grinned as he said it, though he scowled

momentarily as he glanced at Gabriel climbing foot over foot up the mast, shrieking, "Death! Death!"

The gull on the masthead heard and understood and flapped lazily away.

Dave and Hudson were laughing and slapping each other on the back like good lawyers after a murder trial.

Then a little breeze sprang up from nowhere. The sails fluttered; the rooster swayed too far to starboard and went over again; the cats went into conference once more near the fish box; and Nero stopped biting his tail and, lying down, fell asleep, thankful that he wasn't a collie.

"Here's a breeze!" shouted the captain as he fixed his earrings in place. "Up anchor and away! N'Orleans by morning, and an extra feed right now for all hands. Come on, Hop Slop, ye heathen; ye're no longer a judge. Start mess!"

"Belly well, Cap'n." The cook edged over to Dave and Hudson. "Me know allee time." he whispered. "Me see learrings in Polly-birdie's fingers!"

"Why didn't you say so?" both boys demanded.

"Me likee little fun on hottee day," Hop Slop replied blandly. "Me always wantee be judge of supleme court, too." And he laughed till the tears ran down his face.

Away to the Swimming Hole

By F. J. Patten

When the sun rides high in a summer sky
And your shadow is short as your nose.
On the country road where the earth, dust-dry,
Puffs up through your naked toes;
When the grasshopper scrapes his monotonous drone
Half asleep in the withering grass;
When the thirsty trees scarce turn their leaves
In the listless breezes that pass;
When the heat waves quake and shiver and shake
On the crest of the sun-baked knoll—
Come away with me to the willow tree
That shelters the swimming hole!

Come away with me where the willow tree
Dapples the water cool,
Where the skate-bugs dash and the shiners flash
In the depths of the magic pool;
Where the lilies float at the mossy brink,
Where the thrushes bathe, where the robins drink!
Come away with me where the waters free
Dance merrily over the shoal,
Come away with me to the willow tree
That shelters the swimming hole.

Meeting the Pinch

By Archibald Douglas Turnbull

Illustrated by Thomas Skinner and Harry H. A. Burne

NED HYATT, commanding the American destroyer *Blayne,* often wondered what he would do in a real pinch. Would he be able to think calmly and clearly, decide on the right action, and then, without losing a minute, follow his decision? Could he, as the saying goes, rise to the occasion the way men he had read of, in stories and in history, had risen? Or would he hesitate—and be too late?

There were several reasons why Ned had doubts about himself. Perhaps the main one was that, during all the time he had spent in the Navy, he had never been called upon for anything of the sort; never seen any real naval emergency where the responsibility had been his own. Whenever an accident had happened, or just escaped happening, to the ship on which he chanced to be serving, there had always been some older officer with the duty of making decisions and giving orders. In such cases, Ned had always found it easy enough to do as he was told, no matter what the danger might be. But now, in command of his own little ship for the first time, he realized that he would have to give the orders while other officers and men carried them out; he would be responsible for any mistake.

Another reason for his doubts lay in his recollection of things that had happened at the Naval Academy. He had never forgotten coming up to bat, one June afternoon—he was playing shortstop, that year—in the ninth inning of the Army Game, with two men on bases and nothing but a hit needed to tie the score. That was just the sort of situation that every ball player dreams about; always, in the dream, he makes at least a clean single. But Ned, considered one of the Navy's best batters, had not even scratched one little foul; he had just stood there at the plate—and struck out. From that day, although the Army pitcher was one of the cleverest, who allowed hardly any hits in the whole game, Ned had put that strike-out down as a complete failure of his own. Falling down when the eyes of the whole battalion of midshipmen were on him, when all their yells were cheering him on to do his best? Why, a man who could not make good with that support was almost sure to fall down worse when it was not a case of being a public hero. And the following year—his last—a sprained ankle had robbed him of all chance to retrieve himself.

This doubt had been one of Ned's chief thoughts when he was ordered to command the *Blayne.* He had wondered if other young officers and captains felt the same way. But, of course, he could not ask any of them, a man who has these doubts hardly cares to tell any one else. Besides, if his official record, the record of the work he had done as a junior officer in engine rooms and turrets, with broad-

side guns and torpedoes, is a good one, he naturally does not want to suggest that it will ever be anything else.

Aside from this one thing, Ned was "full-out," as the aviators used to say, for the *Blayne*. She was a new destroyer, with all the latest devices in her, with a good crew, and a speed of about thirty-five knots. As any one would be, Ned was thrilled with her from the moment he "made colors" on her for the first time and placed her in commission. To see a long, narrow strip of bunting—the "captain's pennant, or coachwhip"—go fluttering to her masthead and know that it was *his* pennant, made the day a great one for Ned. His two-and-a-half stripes, as a lieutenant commander, seemed the broadest stripes any one had ever worn; and since he was, just then, one of the youngest officers commanding such a destroyer, there seemed a good excuse for his feeling pretty pleased with the world. Every sailor man knows there is no job like being captain—even if it is only of a sailboat.

The *Blayne's* next six months were filled with all sorts of special target practice with guns or torpedoes, and with trial runs at twenty different speeds. As usual with new ships, her officers and men had to learn how fast she could go, how far she would run on through the water if her engines were going "Full Ahead" and were then suddenly thrown to "full astern," how quickly she could be turned by using only the rudder, and how quickly, if one engine were backed, to help her around. All the long list of such exercises was gone through and, naturally, her captain was expected to know more about the results than any one else. In all close calls, like just missing the clumsy ferry-boats, shrieking tugs, and huge ocean liners, when the *Blayne* came into New York harbor, or like going alongside a dock when the wind was high and a cross tide was running, it was the captain, Ned, who was expected to handle the ship.

When they had gone through all this without any unusual event, and without any mishap, Ned felt that he knew a good deal about the *Blayne* and her habits—for every ship has habits of her own that are different from even her sisters who seem to be cut out of the same sheet steel or poured from the same mold. But he often wondered whether that emergency would ever come to the *Blayne,* while he was in her, and whether, if it did come, he would know what to do—and do it.

After she had been thoroughly "shaken down," the little ship joined the Flotilla. With thirty or forty other destroyers, she steamed this way and that, laying great black screens of thick oil smoke around the battleships, as she would have to do if an enemy fleet were approaching, or going through other elaborate maneuvers. Nearly every time she had to move at high speed, and very close to other ships, Ned would say to himself, "Will this be the day?" He was not exactly afraid—certainly not afraid of any accident itself—but he did doubt his own judgment and his own quickness in a case where so much might depend upon him. So there were times when he was very uncomfortable on that account.

Then the Navy Department sent half a dozen destroyers, of which the *Blayne* was one, across the Atlantic to make a cruise in the Mediterranean. Our ships make these visits every now and then, just to show other nations what our flag is like, to protect the interests of our citizens abroad, or else to represent the United States at some great celebration like a jubilee, in honor of one foreign prince or another. Sometimes, too, our ships in the neighborhood are able to dash to the rescue when there has been an uprising with refugees, like those at Smyrna not

In such cases Ned had always found it easy enough to do as he was told

long ago, to be saved, or when there is an earthquake, like the recent one in Japan. Every navy man likes to have a hand in such things.

Before she left for Europe the *Blayne* had taken on board a number of recruits —new men who were to be given a chance to see something of the world. That, of course, meant more drills for their benefit, and so, not long after the Division reached Corsica, it was split up to give the different captains a chance to carry on independent training. Ned and "Snipe" Curtis, the Executive Officer or lieutenant, who was second in command, worked out a plan for the *Blayne*. To begin with, they headed her out of Naples and steamed off in the general direction of the Suez Canal.

No sea can be bluer than the Mediterranean. On calm, warm evenings, with a clear sky in which great fleets of stars are holding maneuvers around the flagship moon, there is no more pleasant place for a ship to cruise. That was what Ned felt, sitting in his big wicker armchair which had been dragged up from the wardroom. He had smoked an after-dinner pipe or two and he was so comfortably drowsy that he had not even bothered to count the strokes of the ship's bell as its muffled tones, coming from under the bridge, announced that midnight was very near. The *Blayne* was slipping smoothly through the water, her white wake trailing astern, and most of her company asleep in their bunks below.

"Light ho!"

The lookout's cry, breaking into a dull, quiet night, always arouses the officer of the deck; it stirs the quartermaster from his routine duty of reading the log, recording the direction and force of the wind, or seeing to it that the helmsman keeps the ship on her proper course; and it startles the men of the watch on deck from where they are sitting on sea chests spinning yarns of former cruises. A gleam on the horizon may mean the masthead of a steamer, the loom of some great lighthouse on the coast, or—

"Light ho!"

This time the lookout's voice did not have the usual calm evenness of habit; there was a note of real excitement in it which was answered by a similar note in the shout from the bridge:

"Where away?"

"There she is, sir—three points to port!" cried the quartermaster, who is always expected to have the quickest eye in the ship. "There she is!"

"Great Guns! It's some ship on fire! Call the captain!"

Ned was already out of his chair and at the port rail, straining his eyes.

"All right, Davis," he shouted. "I see it. Give her left rudder!"

Obediently the *Blayne* at once swung to port until her nose was pointed straight for the bright glare which her speed was bringing rapidly up over the skyline.

"Ring up full speed!" Ned's voice came, this time, from the bridge-ladder up which he was scrambling. "And tell 'em down below to work her right up over thirty!"

"Whatever she is," he went on, "it's time we took a hand in the game. Look at her, Curtis"—for Snipe had just reached the bridge, with a light sweater hastily flung over his pajamas and crookedly buttoned, straw sandals bought on China cruises upon his feet, and a uniform cap jammed down over his eyes that had only just opened, but were wide awake and gleaming in the light reflected from the glass cover in the canvas-hooded chart board.

"Yes, sir—surely is. We're about—about here, sir."

They bent together over the chart, to mark what was the *Blayne's* position at

the time of the changing of her course.

"Great Scott! What's that?"

Under their feet the *Blayne* had staggered from her thirty-knot stride, then recovered and rushed on. At the same instant a muffled thud came to their ears from the direction of the burning ship.

"Ammunition! Must be some transport—none of ours around here, is there?"

"No, sir—but that's what she is, all right. Look—she's seen us now—there go her colors—she's a—a Frenchman, isn't she?"

As Snipe spoke, a flag was crawling to the masthead, plainly outlined in the mounting flames. Its stripes of red and blue could be made out through Ned's glasses.

"French transport? That might mean passengers. Are the boats all clear for lowering? Better let Evans take charge of the Fire-and-Rescue Party—he'll think fast, and give us action. Hands by both engine-room telegraphs! Mind your rudder!"

"Fire's aft, apparently," he went on. "Got into the magazines there, already—probably get another kick, shortly."

He was right. While the two ships were still several hundred yards apart, the little *Blayne* stumbled again, the windows in the chart house rattled, and Curtis grasped the handrail to steady himself.

"I'll take the ship, Davis," ordered Ned. "You look out for our lines on the foc'sle—and work fast! Howard's on the fantail, I suppose?" As Davis left the bridge, Ned added to Curtis, "I'm going alongside. It's the best chance, and there's no time to lose. Hold on for a bit, with the boats." His voice rose, struggling against the roar of the forced-draft blowers. "Stand by—all hands!"

On went the *Blayne*. Except for the engineers below at the boilers and turbines, her whole company was at the rail, every eye fixed on the transport. Even at that tense moment, perhaps some of them could give a thought to the spectacle she made—black smoke belching from an after hold, hungry flames laying their tongues to everything wood, and struggling figures, now sharply distinct in the glare, now shrouded in shadow, swinging axes, laboring with writhing hoses, or staggering under what were evidently boxes of ammunition, hurried forward and dumped overside.

From Ned's mouth the orders came crowding one upon another.

"Left rudder—left a little more—steady! Now—full right! Stop both engines! Steady!"

On a wide curve the *Blayne* swooped down.

"Right rudder! Half speed astern, both engines! Stop, starboard! Bear a hand with that bowline—stop port! Secure your lines!"

Her blowers still spinning madly, their vibration making the *Blayne* seem to pant hard after her sprint, she lay neatly in position, bow and stern lines holding her well forward beside a ship of nearly twice her length and many times her size. Across the small space between the two rails a hundred hands on the transport pushed a narrow gang plank; toward it an excited human huddle was already being herded.

"Look, Cap'n," cried Curtis. "There *are* women—a bunch of them—and children! I'll hop down and get them headed below. Sang Ho has coffee going in the galley——"

Curtis had reached the gangway. A dozen of the refugees had passed over to the *Blayne's* deck in safety; many more pressed behind them. And then——

The fire, fiercely resenting these newcomers who seemed about to rob it of its easy prey, reached for a weapon that

would be stronger than a mere warning to the *Blayne* to keep clear. It bit into another magazine, where heavier ammunition was stowed.

With a roar that third explosion tore a great hole in the transport's deck. Like so many packthreads, the *Blayne's* mooring lines were snapped in their chocks; like a chip she was lifted out of her berth alongside and flung off, to come to a shuddering stop, half her length away. And the gangplank, deprived of support at one end, slid, swayed, rolled over, and hurled its burden into the water.

"The boats!" Ned's voice returned to him huskily, after that breath-taking moment. "Ah—there goes Evans—good man! Lower away your port boats, too!"

Over they went, their crews clambering in as the gunwales reached the rail; for an instant they hung in their falls, then dropped "by the run," to meet the surface of the sea with unheeded slaps, and push off, in the very act of unhooking, to search for men and women overboard.

"Slow astern both! Right rudder! Stop starboard!"

To Snipe Curtis it was clear enough what Ned's orders would make the *Blayne* do—but why do it? Ned's own mind was busy with the possibilities. Another explosion like that, with the *Blayne* alongside, and who could guess what would happen? If the lines held, and the transport blew up and sank, would she take the *Blayne* with her? Could the slim destroyer provide enough buoyancy to hold up both ships? Or, would the shock fling her clear again? How could the boats work fast enough to save everybody who might be driven to leaping overboard? And would they not have to jump, since the French crew could not win its losing fight and since the transport would soon be a roaring furnace? What about the women and children then?

On the other hand, there was the *Blayne* to consider. How much may a commander ask of his men in the way of risk—how far has he the right to venture his own ship, for which he is solely responsible?

These were the questions that raced through Ned's mind. Hard upon their heels came the answer.

"We'll ram her, Snipe! It's the best chance—about the only one. If we can dig in deep enough, another kick like that last one won't lift us off——"

"But the bow, Cap'n—her plates—?"

"Hang the plates—they'll have to stand it! Half speed, both engines! Keep her steady on the for'd end of the deckhouse, quartermaster. Stand by to ram!"

Not a man in the *Blayne's* crew could boast of naval service reaching back to the days when such an order was not uncommon, when, of two battling ships, the one who has the weather guage would maneuver to thrust her bow into the other and cut her down. But every man had faith, and each knew enough of ramming to fling himself down on fingers and toes, facing forward.

Would the *Blayne* stand it, thought Ned? Would she cut her way cleanly into the big ship and cling there in the wound until her job was done? Or would her bow plates bend and crumple, breaking her nose and making her helpless? Another minute would settle that question but, once in, could she get out whole? Well—time enough for that, later—what was wanted now was speed.

On the Frenchman, they divined what Ned was trying to do. The moment of indecision, when they saw him draw off, when they wondered if he would risk coming alongside again, passed into admiration.

"Magnifique!" their shout went up as the *Blayne* came on, sharp orders drove

passengers and crew away from the deck-house.

Fifty yards to go—twenty—ten. Like a clean-bred hunter at a fence the *Blayne* gathered herself together, then leaped for the transport's side, in black shadow. A ripping, rending crash—and she was in! Deep into the big hull, her sharp bow cutting beyond the midship's line, she drove like a dagger to the hilt. Then the stout propellers, the first that had smashed home the blow, stopped and waited for the next order.

"Look alive—everybody! *Vite!*"

No need for Ned to shout that order. No need for any gangplank now. Carrying what little they had been able to save the survivors had only to grasp the outstretched hands of officers and men, to scramble over the remains of the *Blayne's* wire life-lines, broken in the shock of collision, and stagger aft along her deck. Some leaped upon her anchors; some flung themselves on her stanchions, or swarmed like ants over her nose. In hundreds they crowded on board, while half the *Blayne's* crew, jumping to the transport's deck, passed up children or bundles, gave a hand everywhere. And the *Blayne's* boats, helped by the glare of the flames, found and gathered up the struggling swimmers to bring them alongside.

Locked together, the two ships floated. Ned wondered whether the *Blayne* could float, after he should have wrenched her loose—or would there be a terrific, fatal hole in the bow. Well, in any case, they could not stay where they were very long; another explosion might come at any instant.

"Is that all? Everybody off, Curtis?" he shouted, as he saw the fire-fighters, working to the last, draw back to follow their shipmates.

He had his answer in the gold-trimmed peak of the French commander's cap as that officer, last to leave his doomed ship, leaped upon the *Blayne's* deck, clambered to her bridge, and would have thrown his arms fairly around Ned's neck.

"Épatant, commandant! Heroique!"

From a flood of excited language, Ned recognized very little; he only knew, from the tone, that it was praise.

"Oui—oui," he raised a protesting hand. *"Pas de tout*—never mind—just a minute—we have to get out of her. All clear, Curtis?"

Hands upon the telegraph again; another moment's pause as the *Blayne* pulled herself together.

"Slow astern, both engines! Rudder amidships—half astern—stand by all your lines—let go!"

Almost as if she were reluctant to leave a wounded sister, the *Blayne* drew out, shook herself, staggered, and was away. To the glory of her builders, her bow plates, bent as they were, held firm; her bulkheads seemed as strong as ever, she had won.

"Wish we could have got a line on that packet, Snipe," began Ned. "If we could have towed her in—but it's sixty miles—and there's so little left——"

Ned never finished that sentence.

With the *Blayne* perhaps a hundred yards away, and still backing, the fire made its last effort. As if a volcano had suddenly erupted beneath her, the transport fairly sprang into the air, broke in two and, with a great burst of flame and cloud of smoke, sank hissing to the bottom. The *Blayne* had had perhaps two minutes to spare!

"Great Scott, Cap'n—just made it! Well—we got everybody—look out, sir—here comes the French skipper again!"

This time, there was to be no resisting the celebration. The French captain seized Ned's arm and simply dragged him down the ladder to the deck, where the

survivors were gathered. There, the captain burst into a torrent of words and gestures, interrupted every minute by excited cheers from his listeners.

Ned, in the proverbial "first one foot, then the other" attitude, had to listen, too. but he grew restive. Unfortunately, at the Naval Academy, he had not had high marks in French; only here and there came a word that he could understand. But that, after all, did not very greatly matter, for his heart was warm. An emergency had come—a real one. Looking back on the last hour, he realized that he had never had time to worry about what he would do in a pinch. Instead—thanks to the gallant little *Blayne*—he had known exactly what to do and he had proceeded to do it.

Pops of Popular Science

Driving Tanks by Radio

ONE of the newest uses of radio is to direct the movements of a fleet of great caterpillar tanks by this unseen power. In a remarkable test made at Washington a number of tanks were put through various maneuvers by a wireless man who rode in a tank at a considerable distance from them. The commanding officer of the fleet operated a master tank supplied with a sending station which enabled to start and stop the other tanks and increase their speed or slow them up at will.

The apparatus in this master tank is tuned to the same wave length as the apparatus in the other tanks. The commander of such a fleet has much better control of the units than he could have if the tanks were operated by the individual men subject to his orders. It is obviously difficult to signal from one tank to another, especially in action. By controlling the tanks by radio they can be made to advance, or retreat, increase or diminish their speed and turn from side to side without loss of time at the will of the operator.

Up-to-date Whale Boats

It is a mistake to suppose that the picturesque trade of whaling is a thing of the past. During the past summer 820 whales were caught in the north Pacific alone, yielding 30,000 barrels of oil. In place of the deliberate old sailing craft which once searched for years at a time for whales, a fleet of small but fast steamboats, with every modern equipment, now go to sea. A skillful harpooner once stood at the prow and hurdled his spear far ahead at the whales, while now a harpoon gun is used to fire explosive harpoons, hitting the mark with marvelous accuracy over great distances. When a whale is struck with such a missile it may continue to swim for some distance but it soon dies. The whaler approaches, inserts a red flag in the body and goes after another catch. After a day's work, the smaller whales or those under 100 feet in length, are stripped alongside the whaler while the big ones are towed to port. Whale oil and whale bone are both valuable, while the tail is canned and finds a ready sale, especially in Japan. Tons of whale meat are sliced, salted and shipped to the markets in cans or barrels.

As if a volcano had suddenly erupted beneath her, the transport fairly sprang into the air.

He was to arrive on the boat now approaching.

The Last Arrival

By the late Rear Admiral Adolph Marix, U. S. N.

Illustrated by J. D. Todahl

THE United States Ship *Saco* was to sail for home in one hour. The last boat from shore was approaching the ship. The vessel was at anchor in the harbor of Padang, on the island of Sumatra. Her destination was San Francisco, with orders to stop on the way, when necessary, for coal, water, and provisions. It was June, 1875, which was nearly four years from the time she had left New York.

The old-time man-of-war's sailor, when on a foreign cruise, could always be depended upon to ride a horse or a donkey the moment he reached shore on liberty, or to take home with him either a monkey or a parrot at the end of his cruise, if permitted to do so.

The *Saco* had been in port seven days. At the end of two days, a dozen little monkeys had arrived on board, but parrots were not permitted because a nervous First Lieutenant objected to the noise they made. After this number of monkeys had been reached no further permission was granted, except for one, which the yeoman of the ship was to bring on the last day. So many rumors about the size and prowess of this animal had been circulated on board that he became the principal subject of conversation and his arrival was looked forward to with the greatest expectation. By report, he gradually grew in size, until it was fully believed that he was seven feet in height or even more.

He was to arrive in the boat now approaching the ship. Work was going on at the time, preparing for sea. Everything was stopped, when the boat arrived, to greet the newcomer. The officer of the deck allowed the men to knock off work and the ship's side was soon lined with sailors. A number even went aloft in the rigging to have a better view. The master-at-arms, the chief police officer, and his assistant, the ship's corporal, came to the gangway as usual to see that no rum was smuggled on board. It was noticed that each one had a pair of handcuffs, which they admitted were for Mr. Monkey, should he become insubordinate.

After the stewards and provisions had been taken on board, the yeoman came up the ladder, leading the new arrival by a mere string. Everyone was surprised at his tame and gentle demeanor. There was also much disappointment when he proved to be shorter than the yeoman, notwithstanding the fact that the latter was the tallest man of the ship's company. When the quarterdeck was reached every one gave the animal plenty of room. When assured by the yeoman that he was perfectly safe, the men and the apprentices crowded around and even began to pet him. His enormous size and strength were then realized. He was taller than many of the apprentices, being only half an inch less than five feet in height.

He was of the species the natives used for climbing coconut trees to break off the nuts, and was said to be the largest of that kind that had ever been raised at

Padang. One of the boys promptly called him "Cocoanut," by which name he was known for some time. Soon the officer of the deck gave orders to go ahead with the work and the quarterdeck was cleared. The master-at-arms and the ship's corporal put their handcuffs in their pockets and went below, trying to look disgusted. As a matter of fact they felt very much relieved, for any three or even four men would have found it difficult to handle the powerful beast.

The yeoman set the monkey at liberty. Cocoanut took a quick look around and for the first time spied the little fellows that were perched on the yard arms. He sneaked forward very slowly, and as soon as he had reached the foremast, made a dash aloft and commenced to throw them overboard, jabbering and grinning all the time. He did not hurt them, but simply caught and threw them into the water. Boats had to be lowered to rescue the victims. After he had entirely cleared the foremast, he came down, and before he could be caught, made another dash and went aloft up the mainmast and repeated the trick. He did not allow one animal to escape. Then down again he came, but was captured before he could reach the mizzenmast, and was chained on the port side of the quarter-deck.

Here appeared upon the scene the bulldog, Toby, an animal of a famous fighting breed, who had up to now been the only pet on board. He at once took a violent dislike to Cocoanut. After growling and barking, he went for him with the evident intention of disposing of the intruder for once and all. Mr. Monkey did not seem in the least disturbed. He simply took hold of Toby with both hands, one on each side of the jaw, gave him a vigorous shaking, and let him go. The fighting bull never again came near him.

All hands had looked forward for great fun should Cocoanut become seasick, but he proved himself to be as good a sailor as there was in the ship. He rapidly became domesticated. By the time Batavia was reached, he was messing with the crew. He understood the boatswain's pipe to meals and joined whichever mess cloth proved most inviting. In those days there was no such thing as mess tables and benches. These visits of Cocoanut actually created a good deal of jealousy among the men. When it became known that he was very fond of sweets, the canteen of the ship began to flourish as it had never done before. Each mess vied with the other in offering the most delicious dainties as a bribe to the desired visitor.

Cocoanut had also begun to sleep in a hammock. It was slung alongside the one occupied by the yeoman. This was the only advantage that the latter had over any other member of the crew, for Cocoanut was perfectly impartial in his likes and dislikes. For a few days the hammock was brought to him, slung and unlashed, so that he had only to crawl in. The first night that this was not done, Cocoanut slept on the hard deck. He showed his indignation the following day by not going near any one. That night, when all hands were piped to hammocks, and no one brought his hammock down, he went to the netting, took it down, slung it and unlashed it. Every night after that he mustered with the ship's crew at the place where his hammock was stowed and took it down like every one else. Under no circumstances could he be induced to lash it up and stow it. He was capable of doing so, being both big enough and clever enough, but the rascal seemed to know that the hammock had to be taken away by *some* one, so he declined to touch it.

During the first week at Batavia the ship's tailor made a white sailor suit which Cocoanut was permitted to wear on Sun-

days at general muster. He always looked very proud with his sailor clothes, black neckerchief, and fancy knife lanyard. At the Sunday inspection, he always took up his position near the Captain of the ship. He even tried to accompany him on his tour around the ship, which was the duty of the Executive Officer. When not permitted to do this, he looked very much offended.

On the last evening in port, the officers of the ship gave a minstrel entertainment to their friends on shore. A good minstrel company had been formed from among the crew and the entertainments they gave were really creditable. On this occasion, the last number on the program read: "All Hands to Muster to Dub the Monk." When this number was reached, "Bones," represented by the chief boatswain's mate, took out his whistle and called,—"All Hands to Muster to Dub the Monk." At this order all the members of the minstrel company formed at one end of the stage and Mr. Johnston, the middleman, led Cocoanut out, attired in blue-and white-striped pajamas.

A very ludicrous and pompous ceremony followed after which he was named "Koko." The middleman then informed the audience, that as the ship was about to start for colder climates, Koko would in the future sleep in pajamas. And also that upon the arrival of the ship at Yokahama, a Chinese tailor would be ordered to make several suits of clothes for him. He added that the ship's tailor had protested against this, but the crew did not consider him experienced enough to make the fashionable apparel which was required.

The *Saco* sailed the following morning for Labuan, the capital of British Borneo. It was necessary to go alongside the wharf for coal at this place. While the ship was being warped, no one paid any attention to Koko. The moment he was within jumping distance, he was ashore like a flash. The natives, who had gathered on the wharf, were a different class from those at Padang. They evidently had never seen a monkey of that size before. Men and women made way for him, while the children ran screaming into their huts.

Koko remained perfectly serene. He walked up the wharf and through a part of the town in the most unconcerned manner. A number of men followed him, the yeoman among them, nearly frantic at the idea of losing his prize. They walked slowly at first so as not to frighten Koko. As they walked faster, he walked faster. When they began to run, he ran also, and kept increasing his speed as they did, always keeping about the same distance ahead. As soon as an open space was reached, where a number of cocoanut trees grew, he promptly ran up one of the tallest. Every effort to coax him down failed completely. He remained perched up on the highest branch, and did not show the slightest inclination to come down to his shipmates.

Mealtime came in about an hour and the boatswain's mate piped to dinner. By this time the men had about abandoned all hope of ever again seeing their messmate on board. But to the surprise and joy of all, Koko came down very calmly, walked on board, and joined one of the messes. From that time he was strictly quarantined.

At the other ports visited, the ship did not go alongside the wharfs and Koko had no opportunity to again try to desert. When the *Saco* reached San Francisco, "The Last Arrival" at Padang was the first to leave the ship on his way to the zoological gardens which were to be his future home. All the officers and men congregated at the gangway and gave him a hearty send-off.

The Wreck Mystery

By Charles Allan Herndon

THE clock on Dr. Phineas Wilmot's office wall slowly ticked off the dull seconds. At least, they seemed dull to Bill Hardin, the office boy. Dr. Wilmot, mentally exploring a new article in one of the many technical journals by which he kept up with the latest developments in science, was entirely oblivious of time. But Bill forgot the clock, too, when the stocky little man with the big voice walked in.

John Rhodes was the caller's name and his card bore a further notation that he represented the P. &. Marine Insurance Company. Neither of these facts meant anything to Bill. But when a little later the stranger boomed out: "We want your help, Doctor, to solve a mystery that threatens to ruin us!" Bill was all attention.

Dr. Wilmot's shaggy eyebrows lifted slightly.

"We have heard of your work in throwing light upon difficult problems of some of your fellow scientists," Rhodes continued, "and we are convinced that you are the man we need."

"Just what is this 'mystery'?" the Doctor inquired.

"Strange wrecks along the Pacific coast —ship after ship insured by us has gone on the rocks," replied Rhodes.

"Have ships insured by other companies also been wrecked?"

"Yes, everybody's been hit," admitted the insurance man, "but our Company has lost most heavily recently paying shippers and salvage claims. It seems almost uncanny the way lives have been lost and ships destroyed along that coast."

"I've always understood that our Pacific shores were dangerous, but it seems to me that this is a question for some of your old salts," said the Doctor. "Have the sailors no explanation for these wrecks?"

"Yes, there are plenty of explanations —but none that are convincing."

"Do these wrecks occur in any one place?"

"No," replied Rhodes, "they seem pretty well scattered along the coast; although the Straits of Juan de Fuca, where vessels going to and from Seattle turn, seem to be especially dangerous."

"That would seem to indicate that it was poor seamanship."

"Yes, but we've looked into that," was the reply. "The captains of some of the vessels that have been lost were noted all along the coast for their ability in handling a ship. They had been sailing in those waters for years."

"How about the conditions under which these wrecks occur — the wind and weather?"

"Well, they go on the rocks in thick weather, rain, snow, or fog, but if something else wasn't involved the captains wouldn't get off their courses like they do. The *Pearl,* the latest ship to go ashore, was running through a fog, so wind couldn't have played any part in her wreck. The *Howard* and *Magnolia* were

wrecked in a storm in Juan de Fuca, and you'd think the wind might explain that, if they hadn't been handled by two of the finest masters on the coast, but the *Gypsy Queen* went aground near Cape Disappointment, and the wind wasn't even blowing toward the shore."

"And have you taken into consideration the currents?" questioned the Doctor.

"Certainly that was the first thing we thought about," Rhodes assured him. "You know the tides cause currents that change in direction and speed at different times, but we have figured them out for the places where these boats hit the rocks and they do not account for the wrecks. Of course, the *Gypsy Queen* and the *Pearl* prove that it was not any temporary current caused by the wind that was blowing at the time."

"I'll admit it does look like a puzzle," said the Doctor. "It isn't hard to see how those old legends of mermaids luring sailors onto the rocks must have started. Evidently some strange things happen in the sea. Do you suspect any crooked work on the part of the crews? Is it possible that there is a conspiracy among the ship captains to run vessels aground so that some other vessel may come along and help save the ship or pull the derelict into port and collect salvage from the insurance companies?"

"Most improbable; men are not risking their lives on any off chance like that," replied Rhodes with a shrug. "We wouldn't suggest such a thing, unless we had some pretty strong evidence to base suspicion on. But we do want you to find out whether its men or the sea that's responsible. The way these ships are being run on the rocks must be stopped."

"If I can help, I'll do it," Doctor Wilmot announced.

"Good," said Rhodes rising. "Our agents at San Francisco and Seattle will supply you with passage on any boat you may decide on. We have the full cooperation of the steamship companies."

"Bill—!" called the Doctor. "Did you hear what this gentleman said about the wrecks? Can we get ready to leave for the Pacific Coast to-morrow?"

"Sure," answered Bill eagerly.

"You're not going to take the kid, are you?" protested Rhodes. "You may run into some rough customers, and he'll only be in the way."

"You don't know Bill," answered the Doctor. "I couldn't get along without him. He came in handy the last time we were out on an investigation like this—he's a good scout and knows how to take care of himself and somebody else besides."

A few days later, Doctor Wilmot and Bill entered a small, greasy-looking restaurant near the water front in San Francisco.

"I don't know just where to begin on this case," the Doctor confided to Bill. "But did you ever think how much of what we know we get from hearing other people talk. I guess the best way to learn about anything quickly is to go to the men who know most about it. I've found out from the United States Coast Survey about their latest scientific discoveries about the sea itself, and this ought to be a good place to get in touch with the men who have first-hand knowledge of these wrecks."

The Doctor moved over to where the proprietor of the restaurant leaned against the counter and soon was chatting with him in a friendly fashion. He asked where he could get hold of any of the survivors of the lost *Pearl*. Although the proprietor didn't know, he did remember where he might find a member of the *Otter* crew. The *Otter,* he said, had helped

bring the crippled boat into port after the disaster. In fact, the *Pearl* was the second vessel that the *Otter* had salvaged in the last few months. He gave the Doctor detailed directions how to find the member of the *Otter* crew, but warned him that the *Otter* was due to sail the next day for Seattle and he would have to find the man before then.

The Doctor paid little attention to the directions, however. He already saw the next step in his investigation. Calling Bill, who was waiting near the door, he started out toward the steamship company offices. Soon he was armed with a letter from the company introducing him to Captain Erickson of the *Otter* and explaining that he was to be allowed to go on the ship and given every facility for learning about the sailing and management of the steamer.

But almost as soon as Dr. Wilmot and Bill had set their feet on the deck of the *Otter,* Bill forgot for the time the main purpose of the trip. He was intent on seeing the ship from bridge to boiler room. While Dr. Wilmot was presenting his credentials to Captain Erickson, Bill was beginning his tour of investigation down in the engine room. When the bluff old sea captain was cordially showing the Doctor into his cabin, the Doctor's office boy was getting acquainted with the cook. He seemed to be everywhere; now asking about the steering gear, again inquiring about the freight, then watching intently the preparations for casting off from the dock.

By the time the *Otter* had passed down the harbor, out the Golden Gate, and headed north, however, Bill's immediate curiosity on board had been temporarily satisfied. As the steamer began to sway in the gentle roll of the sea and the waters to stretch out to meet the horizon to the west, Bill felt a thrill—at last he was really on the ocean. While he was leaning on the rail gazing out to sea, Dr. Wilmot came up.

"Almost as much water here as in the old swimming hole at home," the Doctor said jokingly.

"Yes, sir," agreed Bill. "But it does seem funny not to see any trees or grass or anything but water."

"Oh, there are lots of animals and plants too in that water," Dr. Wilmot replied.

"Plants?" questioned Bill. "I didn't know there were any plants in the ocean, except maybe some seaweed along the shore."

"Animals in the sea must have green plants on which to live just like we have to have them on land," the Doctor explained. "Down as far as the sunlight goes, 300 feet or more, there are tiny plants all through the water. They do not have roots and leaves like our land plants, they take in their food through all parts of their bodies. Some fish eat these plants and other fish eat the fish that eat the plants."

"Can you see the plants from here?" asked Bill, peering down into the water swirling past the ship's side.

"Not much, unless your eyes have microscopes attached to them," laughed the Doctor. "Of course, they are thicker in some parts of the sea than others, but I'll venture to say, we are running through a regular pasture; yes, a series of pastures, one on top of the other, with thousands of fish feeding at different levels. If that bucket over there were filled with that sea water, there'd probably be a million tiny plants and animals of different kinds swimming in it."

As the Doctor moved on toward the bow of the steamer, Bill glanced at the bucket and an idea began making connections in his brain. Here was a chance to

get a close-up of that sea water. Quickly catching up a long rope, with scout-trained fingers he tied it to the handle of the bucket. As the railing of the ship was shoulder high for him, he climbed up so as to give his arms free movement. Then swinging the bucket free from the side of the ship, he let it fall into the water through which the steamer was speeding while he held tightly to the other end of the rope.

The rope suddenly became taut. The bucket felt as if it was filling with weights of lead. Bill had a fleeting fear of losing it—and being called to account for having done so. Then for the briefest moment, his arms seemed about to be jerked from their sockets. The next second, he went tumbling head first over the side of the ship.

As he went under, he felt the currents created by the ship trying to pull him several directions at once. Danger of being cut to pieces in the propeller flashed through his mind, and he swam hard away from the ship as he came up. The stern of the steamer shot past him. Then a sailor shouted:

"Man overboard!"

Almost at the same instant a life preserver came circling through the air. With a splash it struck the water and Bill reached it with a few strokes. The *Otter* slowed and stopped. A boat was quickly lowered. Soon Bill had been pulled in and was on his way back to the ship.

"Sure was quick work getting me out," Bill remarked to a good-natured sailor seated next to him. "But suppose it had been night or rough weather, would you have come to the rescue just the same?"

"Well, if it had been very rough the Old Man would have swung the ship around and slowed down, instead of stopping and sending the boat after you. But maybe we would find you and maybe we wouldn't, so you don't want to try that fool trick again."

When Bill reached the *Otter's* deck again, he realized more fully that it had been a fool trick. The Captain was mad as a hornet. "Suppose we'll have to fix up a nursery for this awkward fresh-water brat," he growled.

"Guess you'll have to put me in that nursery, too," spoke up Dr. Wilmot quickly, angered by the Captain's attitude toward Bill. "I'm only a fresh-water sailor myself."

"How's that?" exclaimed the Captain in astonishment.

"This is the second time I was ever even this far from shore," explained the Doctor.

The huge old sea veteran seemed to have lost his mental bearings for a moment. Then a fierce anger spread over his face.

"Do you mean that the Company has sent a man to find out about these wrecks who hardly knows one sort of ship from another?"

"Yes, sometimes a stranger may see things that the fellow who has lived in a neighborhood all his life may overlook," said the Doctor somewhat humbly.

"'Tain't likely. I don't mind saying, it's plumb foolish to send a man out there that never smelt salt water except at a bathing beach," protested the Captain.

The scientist merely gazed silently out toward the horizon. Finally the angry Captain burst out again.

"Either the Company was a fool, or else—you're not supposed to find out about the sea. It's men you're watching."

"I'm out here to find why ships so often run aground along these shores."

"Well, you're on the wrong ship then. Nels Erickson has traveled this coast for thirty years, and he's never lost a ship yet. It's bad seamanship that loses 'em."

"Whoever or whatever is responsible, I mean to find out," replied the Doctor coldly.

"Go ahead, but I'll let you and the Company and anybody else understand that I'm not going to have any spies around me."

"That'll do," flared up Doctor Wilmot, flushing to the roots of his faded red hair.

"Yes, it will do," snarled the Captain. "Go ahead, Mr. Investigator, but remember Nels Erickson is master of this ship. What he says goes."

The Captain's words had stung Bill to the quick. He feared Dr. Wilmot might also decide he was merely in the way. He realized too in angering the Captain by falling over board and losing the bucket he had brought about ill feeling which might interfere with the Doctor's investigation. It was up to him to make amends for the trouble he had caused, and remembering what the Doctor had said in the restaurant, he started to learn all he could about wrecks from whoever would talk to him. A dull blue cloud spreading upward from the horizon in the southwest and long swells in the sea made the subject of storms an easy one to find out about.

The Doctor himself was busy studying the charts and the ship's log in which were recorded the speed, the distance covered, and every change made in the direction of the course. Although Captain Erickson avoided him, the mate was inclined to be sociable. He showed the Doctor on the map how for many miles along the rocky Pacific coast there were no places where ships could make safe landings. He also pointed out how the shore curved inward between series of projecting points and explained how ships in the coast trade usually cut across from one point to the next without following the inward curve of the shore. Taking such a course, he said, it was often impossible to see the lighthouses along the coast between the capes during rain or fog.

"Pretty dangerous coast, then, I take it," said the Doctor.

"Few worse," replied the mate. "Even the Old Man got way off coming down from Seattle not long ago. When we got our bearings we found we were ten miles further out to sea than he had figured from dead reckoning. He wouldn't admit he was wrong though. He's as stubborn as they make 'em."

"Which way was the wind," asked the Doctor.

"Coming straight from the north, so it couldn't have been that that set him off. We were sure lucky he wasn't that far off the other way or we'd a-been piled up on the rocks."

The Doctor was interested in finding out more, but the mate was called away. The coming storm soon had the entire crew alert and busy. The wind became stronger and the white-capped waves began breaking with greater force, filling the air with a fine spray. Now and then waves leaped onto the *Otter's* deck and poured off again like giant hands snatching at the crew. The black clouds moved overhead and soon the steamer was running before a gale.

Bill and the Doctor were ordered into the cabin, as the sea became rougher.

"The cook says there was a big gale the night the *Pearl* ran aground," he volunteered.

"That can't be," the Doctor assured him. "The *Pearl* went ashore in a fog and the wind would have blown the fog away."

"Yes, that's what he said, but the storm came up four or five hours after the *Pearl* struck the rocks."

"That's queer," replied the Doctor thoughtfully. "The *Otter* was swept out to sea during a storm coming straight

down the coast. The *Gypsy Queen* was sent on the rocks when a wind was sweeping straight up the coast. And the *Pearl* went aground and there was a gale came up the coast afterward." Then the Doctor burst out laughing. "We've got the solution to the mystery," he chuckled. "These mariners have stuck to their old ideas and don't know about the recent findings of the Coast Survey."

Then as he studied the chart, his face became more serious. "The mate said this southwester was blowing about sixty miles an hour, didn't he?" the Doctor asked Bill.

"Yes, sir, that's what he said."

"Where do you say we are now, Captain," the Doctor asked as Captain Erickson entered the cabin a moment later.

"The last bearing we took was off Cape Blanco lighthouse and with this gale and rain the next light we'll see will probably be on Umatilla Reef. The log shows that we are now about ten miles off Sea Lion Rock."

"How about the wind?" asked the Doctor.

"I've allowed for the wind blowing the ship in a bit."

"And the currents?"

"I've taken into consideration everything down on the charts," growled the Captain. "What's the matter, getting nervous?"

"How about the current not on the chart; the temporary current started by this wind?"

"I told you I was allowing for the wind. Any mariner knows that wind currents set in the same direction as the wind."

"There's where you're off," said the Doctor quickly. "Instead of being ten miles off from Sea Lion Rock where your log says, we must be eight miles closer in and several miles further north. We must be headed straight for Destruction Island and due there in a few minutes."

"Impossible," snorted the Captain. "The wind wouldn't put us there."

"Not if the wind current moved with the wind—but it doesn't. It moves about fifteen degrees to the right," answered the Doctor sharply. "Ever since this southwester started, the water in which the *Otter* is moving has been swinging over to the right of the wind. The speed of the current is about two per cent of the speed of the wind, so this sixty mile southwester has been setting us toward shore at the rate of about a mile an hour. Figure it out for yourself—but act quickly."

"A fine theory," sneered the Captain.

"You'll find it hard fact, if we run on the rocks," retorted the Doctor. "That right twist in the current is what sent you out to sea coming down from Seattle to Frisco, but you're headed the other way now and that right twist is running you on shore."

"Talk it over with me when we get to Seattle," said the Captain with a sullen shrug.

"Do you mean, man, that you won't change her course."

"I mean just that," replied the Captain, with a snarl that bared his big yellow teeth. "She goes straight ahead, if it lands you all at the bottom."

"I guess you will change your mind," said the Doctor coldly, as he quickly drew a .38 revolver from his pocket and leveled it at the other. "Your head may be hard, but it won't stop a bullet from getting inside. I don't intend to sit here and let you wreck this ship or take anybody to the bottom."

"Let's see where you say we are," the Captain agreed hoarsely.

The Doctor leaned over and started to point with the gun barrel the angle which the *Otter* had taken from her proper course. In a flash, the Captain struck the

Doctor's hand and sent the pistol flying across the cabin.

Bill started crouching forward to recover the gun, but the Captain's huge hand swept him back against the wall with a force that jarred him all over. Then the Doctor rushed. Captain Erickson's big fist caught him on the side of the head and sent him staggering backward.

But if he expected to stop the Doctor with one blow, he was mistaken. With a spring which belied his age, Doctor Wilmot was back again, delivered a sharp right uppercut to the jaw and dodged back out of reach of the terrific force of the full-arm swing of the Captain. It had been many years since either had fought but the old spirit was still there.

The Captain's huge bulk and once tremendous strength might have given him a big advantage, but for the remnants of superior skill and training which had been the Doctor's in his youth. Bill watched fascinated as the two veterans grappled. Over the Captain's shoulder, the Doctor saw him and managed to gasp: "Get up on deck and save yourself when the steamer strikes."

Bill rushed out. The struggle of the ship with the elements seemed fiercer than the fight inside. If he could only stop that ship plunging forward through the blackness to Destruction! Just then the *Otter* gave a lurch. In order to save himself from falling he caught the nearest support. He knew he must act and act quickly. If the Doctor was right, the *Otter* might strike the rocks any minute, now. Wild plans flashed through his head only to be dismissed impatiently. Then, as quickly as he could on the swaying ship, he made his way toward the mate, and grasped him by the sleeve.

"Man overboard," he shouted and pointed to the left side of the vessel.

The ruse worked. "Hard a-starboard," shouted the mate. The *Otter* struggled with the sea and her stern swung shoreward as her bow came around gradually toward the open sea. There was the hurry of men to their places; stumbling, falling, almost blinded by the storm, they hurried to what all felt must be a hopeless attempt to save a fellow seaman.

The cry of "Man overboard" repeated inside brought the Captain followed by the Doctor panting to the deck. Then through the storm came a weird, wailing shriek. The Captain rushed to the wheel and held the *Otter* out to sea and ordered full speed ahead. As he looked back, he caught the flash of lights through the slacking rain. "It's Destruction Island all right. That poor fellow that fell overboard saved us, I guess," he muttered.

Doctor Wilmot caught a glimpse of Bill's face at that moment and on it was a grin which stretched almost from ear to ear.

"How about the wreck of the *Pearl?* She went aground just like we came near doing; but she got off her course in a fog with no wind blowing," asked the Captain as Doctor Wilmot and Bill were leaving the *Otter* at Seattle.

"No wind blowing where the ship was, you mean," corrected the Doctor. "The current doesn't move in the same direction as the wind and local wind currents sometimes precede the winds that start them. You'll remember the day the *Pearl* was wrecked a storm swept up the coast a few hours afterward."

"That's right, there was," agreed the Captain. "I've often noticed that a ground swell gives warning of a coming wind long before she comes up. I'm going to take a ship down the coast of South America next month and I'll remember that the temporary currents started by the wind set to the right of the wind."

"Not on the other side of the equator,"

cautioned the Doctor. "The rotation of the earth on its axis causes that twist. The twist is to the right up here, but to the left in the Southern Hemisphere."

"Guess that's right," said the Captain slowly. Then he shouted after the retreating pair. "If that briny fresh-water sailor of yours ever decides to go to sea, send him to me, and I promise you I'll see that he is treated right."

貪食者

Tom Sick Ja

BY JOHN FINN, JR.

THOUSANDS and many thousands of years ago lived the great famous glutton Tom Sick Ja.

He possessed a beautiful junk and many handsome diligent sons who labored incessantly catching fish that their father might eat. But, no matter how big the catch Tom complained that he hungered, and reviled his sons for lazy bones.

One day the junk spread its bat-like sails and skimmed out on the China sea to fish. High on the teak-wood stern of the boat sat Tom munching food. Along came a great black thunderous wave boiling in foam. It chased the junk which raced ahead like a surf-board. The great wave curled and picked Tom from his boat casting him into the sea and causing him to lose the food he had held in his hand. Tom was angry and sputtered helplessly as he bobbed on the water like an over-ripe onion.

A great fish swam up, tempted by this delightful morsel, and with a flip of his tail and a straining of gills, swallowed Tom, who went down, down, down a great dark place and groped around. His searching hand encountered a fish, so Tom sat down and consumed it. Then he looked further and found many other fish and a lobster which he glutted down. Tom sighed with relief; at last he had come to the right place to live, so diligently he hunted for more to eat.

But the big fish worried, twisted, flopped his tail and jumped high out of water. All was not well within him; so, hurriedly he swam to a beach and came up in the waves, flopped around on the sand and scratched himself against a cliff. In fact, he wiggled so that Tom could no longer hold his hand steady enough to eat, so he hurried up the fish's throat to see the cause of this turmoil. The fish felt Tom in his throat and, with a great cough, spat him up high on the cliffs; then the fish rolled back into the sea. Tom shook his fist at it, saying "Oh! great, lazy one, had you stayed at sea longer, for once, I would have slept on a full stomach."

How to Build a Canoe

By Dan Beard

Illustrated by the Author

THE great problem which faces us in the construction of anything to-day is the question of material, but a good scout and a good woodcrafter must learn to use the material at hand. My old friend, the late Andrew J. Stone, way up in the far north where there are no trees, only shrubs, made himself the frame of a canoe by binding willow wands together and then tying on this frame a cover of waterproof cloth, which had been given him, to protect his specimens on his collecting trips. With this hastily constructed canoe he crossed a turbulent glacier stream. The boat was loaded with the skins and heads of mountain sheep, guns and ammunition, himself and a couple of Indians, but he made the crossing safely! In the Ohio and Mississippi valleys the Indians used canoes hollowed out of logs, in spite of the fact that our modern illustrators almost invariably insist upon representing them paddling birch-bark canoes, a type which many of them had never seen. I have already told you how to make a dugout canoe, but now we are to build a canvas one.

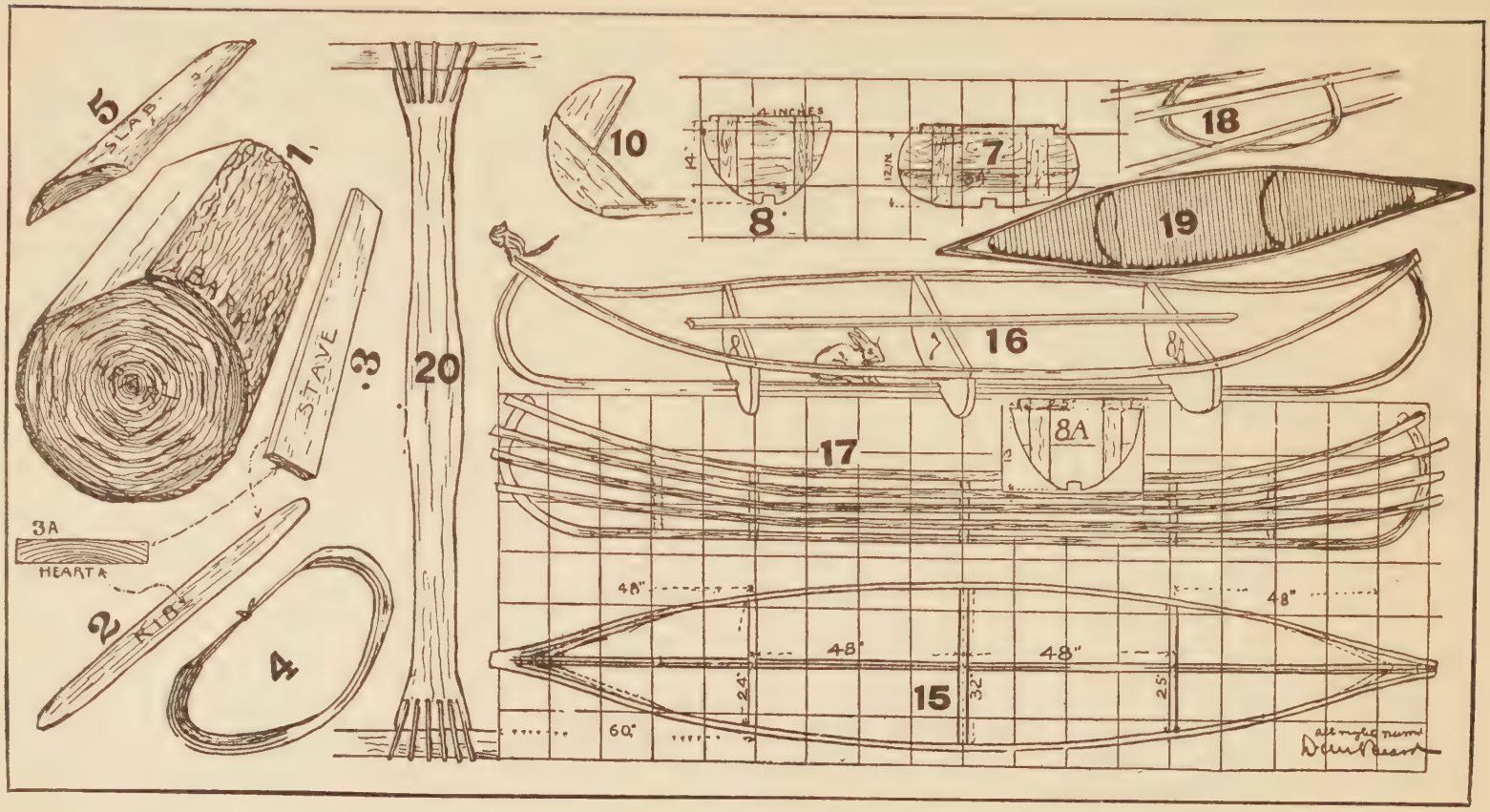
In order to build the boat and hold it firm and steady while so doing, lay a temporary support for the false keel. This may be a 2 x 4 piece of timber or any piece of timber that is stiff enough for the purpose; fasten this to a couple of wooden horses as in Fig. 11. This temporary keel support must be a trifle longer than the keel of the canoe will be, but not shorter; for instance let it be 3 inches wide, and ½ inch thick, if you wish, but these dimensions are not important as this is not part of the boat itself. To this base fasten a temporary keel for the canoe. After the canoe is molded the temporary keel may be removed.

Molds

You will need several molds for shaping the craft—they may be fashioned from the odds and ends of boards—the middle mold (Figs. 6 and 7) and the two end molds (Figs. 8 and 8A). They are not permanent parts of the canoe and are removed after the canoe is framed. See also Fig. 15. Dot lines show bow and stern of 16-foot canoe.

Bow and Stern Pieces

The Indians used a piece of cedar nearly 3 feet long, 1½ inches wide, and ½ inch thick, and split it into four or five sections for about 30 inches, so that it might the more readily be bent, leaving the end unsplit (Fig. 9). If you have no other material you can use barrel hoops and bend them by putting them into boiling water or pouring boiling water upon them and then lashing several of them together with copper wire. Or you can be still more crude and use the heads of barrels as shown in Fig. 10.


5
SLAB
1.
BARK
3
STAVE
3A
HEART
2
RIB
4
20
10
4 INCHES
14"
8
12 IN.
7
18
19
16
8A
17
48"
48"
48"
48"
24"
32"
25"
15
60"

Or you may take straight-grained green elm, a piece a trifle less than 3 feet long, 1½ inches wide, and one inch thick, and bend it by fastening pieces of wire to each end as you would string a bow, with a double string, then make a tourniquet by putting a stick between the wires and twisting it until the tension of the twisted wire (Figs. 9 and 11) bends the elm. Remember that boiling water will always soften the wood so that it will bend more or less readily. Leave the stick and the twisted wire on until the wood is dry.

Ribs

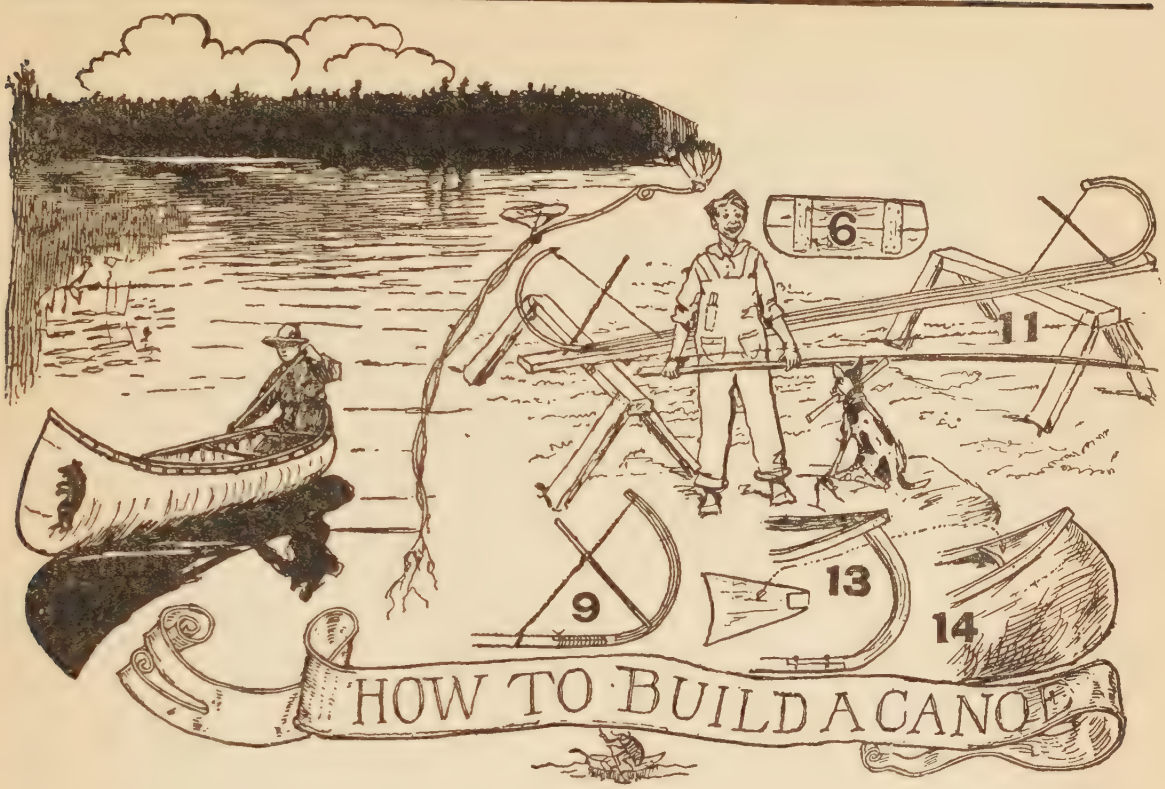
Our canoe must have from 40 to 50 ribs. These ribs should be split from the heart of a white cedar log, split with their flat sides (Fig. 1) parallel to the bark or outside of the billet of the wood. Otherwise the ribs will be weak and liable to break when you try to bend them. The ribs will bend more readily with the heart side (Fig. 3A) for the inside of the rib. You may discard or throw away the sapwood and the slabs, as they are unfit for our purpose. Each rib is 1½ inches thick and the breadth of your hand. The middle rib may be four inches wide.

If the white cedar is unobtainable, elmwood will answer, and it may usually be procured at an old-fashioned blacksmith or wagon shop, if such exists in your neighborhood; or you may use hickory for the ribs. Whatever you use, let it be green wood and used before it has time to season. The ribs may be softened by putting them in boiling water or pouring boiling water upon them. When you bend them bend them in pairs, two at a time, and hold them in their proper form with a strong piece of drilling or canvas tied around them as shown in Fig. 4. I have seen a serviceable canoe made with barrel hoops for ribs, but the craft, while light and usable, lacked the snappy, elegant appearance which we love to see in a canvas canoe. The ribs (Fig. 2) are made from the staves (Figs. 3 and 3A) which have been split from the heart of the billet of greenwood. They are whittled down by hand and smoothed with a knife to the shape and form of the diagram (Fig. 2). They are very important in shaping the canoe. The curve of the ribs determines the depth and stability of the boat.

Gunwales

For gunwales (Fig. 13) use long strips that may be procured of any of the carpenters who put down hardwood floors. These strips are 2 inches wide by ¼ inch thick. They may be of red cedar, spruce, ash, birch, or any wood available that will not warp and which has no knots or blemishes in it. These are to be fastened to the frame as shown in Fig. 17. The ends of the gunwales are made fast to the stems, both bow and stern, and may be fastened on with screws. The point is to make them snug and secure. The other strips are put temporarily in place and evenly spaced between the gunwales and the bottom of the boat. These strips are used to give form to the ribs and may be removed after they have served their purpose.

The gunwales are the long pieces on the top of the sides of the canoe. If the strips are not firm enough tack two strips together, one over the other, thus making one piece ½ inch thick. If necessary three or even four such pieces may be fastened together until the gunwale is one inch thick, but in this case do not put the extra pieces on until after the canvas is fastened on the frame. Fasten them firmly but temporarily to the framework and to the molds and see that they fit neatly in the offsets on top of the molds. Let the ends of the gunwales meet at the stem and the stern, as



shown by Figs. 13, 14, 16; fasten the ends permanently to the stem pieces (Fig. 16).

The ribs are now put in place (Fig. 19). First put the center rib on the upper side of the temporary keel (Fig. 18). Nail it securely to the false keel but do not drive the nails home—leave enough standing to make it easy to insert the claw of a hammer beneath the head and remove it when all is ready. Bend the ends of the ribs gently until they fit inside the gunwale (Fig. 18). Nail the ends of the ribs to the gunwales, using one-inch galvanized brads for the purpose. As soon as all the ribs are in place, remove the side strips A, B and C, Fig. 17. In order to further stiffen your craft put a strip 2 inches wide and about 1¼ inches thick and long enough to reach from stem to stern and be lap-jointed to the stem and stern piece as was the false keel (Figs. 9, 13, and 14).

Now make fast the crossbars, of rock maple if it can be procured, if not, some other tough wood. The dimensions of the crossbars are 2 inches by ⅞ inch and long enough to fit the canoe (Figs. 19 and 20). Use an awl to make holes in the crossbars and the gunwales and with copper wire lash these in place just as the Indians did with roots on their birch-bark canoes (Fig. 20).

Canvas

For a 15-foot canoe use No. 10 seamless cotton canvas; for a canoe 16 feet or more use No. 8 seamless canvas, of sufficient width to cover the bottom and sides of the canoe. Fold the canvas lengthwise so as to find its exact center and crease it like you would your trousers. Lay the canvas on evenly the length of the boat with the crease of center line along the center

of the keel. With the assistance of a helper pull it as taut as may be from stem to stern, and using four-ounce tinned or copper tacks, tack the center line to the stem and stern. If this has been done carefully the cloth will hang an equal length over each side of the canoe. Set three or four tacks lightly along the center of the bottom of the canoe, but do not drive the tacks down to their heads because they are only put there temporarily. Begin amidship and drive tacks lightly about two inches apart along the gunwale, say an inch below the top surface. After having tacked it for about two feet, go to the other side of the boat, pull the cloth taut, and in the same manner tack about three feet. Continue this process first on one side and then the other until finished. While stretching the cloth, work and knead it with your hand and fingers so as to thicken or "fall" it where it would otherwise wrinkle; by doing this carefully it is possible to stretch the canvas smoothly over the frame without the necessity of cutting it. The cloth that extends beyond the frame may be brought over the gunwale and tacked along the inside. The canvas is now stretched on every part except on the bow and stern. With a pair of shears carefully slit the canvas from the outer edge of the bow and stern to within a half inch of the ends of the keel.

Fold the right-hand flap thus made at the left-hand end around the bow and stern, and drawing tight, cut away the surplus canvas and glue the flap down. Heat powdered glue and water in a double boiler, apply a thin coat of glue with a paint brush; after the boat is painted and varnished there will be no danger of the glue softening. Next fold the left-hand flap over the right-hand side and glue it in a similar manner, trimming off the remaining cloth neatly. If there are any wrinkles the lightly set tacks can be removed and reset; if not, all tacks may now be driven home. Now that the canvas is all snug and stretched, tack on the other strips of gunwale over the canvas-covered pieces.

The Sextant

By J. Allan Dunn

Illustrated by Harold Anderson and Harry H. A. Burne

BEN MARTIN, cabin boy aboard the *Southern Star,* sat forward of the galley in the lee of the wind that was driving the bark northwards, with bellying and squared yards, laboriously making a wriggly S with blue beads on the front of the little canvas bag he had sewn with his own hands. The bag was shaped to hold a slab of chewing tobacco and it was designed as a present for Simpkins, the first mate.

Ben sat in a puddle of sunshine glad to feel the warmth of the sun. Cape Stiff had been left behind with all its horrors of fog and ice, of snow and headwinds and bitter, bitter cold. They were speeding north up the South American coast, towards the tropics. The mate said earlier in the day, soon after the noon observation, that they might sight the island of San Juan Fernandez before sunset. Not to touch there—too much time had been lost in making their westing against the Cape Horn weather—but, to Ben, the mere name of the island conjured up a vision of Robinson Crusoe, clad in goatskins, wandering along the lonely strand, umbrella in hand, suddenly halting as he saw the naked footprint that was the trail to his faithful Man Friday. Every now and then he looked over the port rail to see if the island was visible, then went on with his laborious beading.

Simpkins would have been astounded if he had known the gift was for him. He had small use for cabin boys and Ben had come in for the usual share of cuffs and harsh words, of mean jobs and blame for being stupid, which he was not. Neither was the bag intended to curry favor. It was one of other gifts to be bestowed two days later, in a simplicity that was a part of Ben's nature.

For Hansen, the second mate, a pipe stopper carved of bone. The cook had shown him how to do that and given him the material. For Dennett, the steward, Ben's immediate superior and taskmaster; Ben's own luck piece, a Chinese coin of scant value, but long precious to the boy. For the cook, some pads made of bits of canvas, to be used in handling hot metal. Trivial gifts but the best that Ben could devise.

He would have liked to have one for each man aboard but that was impossible so he confined himself to the afterguard and to the cook, to whom, as to the steward, he was assistant.

As for the skipper, Captain Bedford, that grizzled sea dog, long salted by the sea, always gruff and often as tempestuous as a Cape Stiff flurry, to whom Ben looked up with mingled fear and admiration, as for that gift, Ben thought as little of it as possible. He had made up his mind to the supreme sacrifice; it was the fitting thing to give but it had cost Ben much fortitude and some tears to come to it. As he made the second straggly curve in

the S he fought hard to dismiss it from his mind by thinking of Crusoe and of the fact that he was now a salted sailor who had rounded the Horn and was one day to walk the poop and issue thunderous orders in a gale.

Sound was all about him, in the creak of the blocks, the strain of the deck planks, the song of the wind in the shrouds, the muffled thunder of it in the sails, the whistle of it up aloft, the crunch of the forefoot as it smashed the seas, and the hiss of the water along the run. There was the surge of the sea itself rising in ordered phalanx of deep blue waves, mounting and dissolving, speeding the ship as they ran beside it in escort.

Sound and light. Light that poured down from the sky, sometimes diffused by racing clouds, high up, like great puff balls. Dazzling back from the waves, filtering through the canvas, flinging sharp down on the deck.

Motion, in sea and sky and in the ship as it lunged and lifted, as it sped down the watery valleys and tried to fight the pressure of the helm, in the pendulum swing of the tall masts and all the airy fabric of the sails. Sound and Light and Motion with Ben in the midst of them, cradled, a part of them, his soul responding to the strength and glory of it all until he forgot hardships passed and hardships sure to come and only knew that here he was, where he had longed to be, afloat.

The desire of the sea had been born in him. He knew that, though he could not understand the reason for the longing that had always possessed him through all the dirt and drudgery of earlier days—none the less vital now but glorified by the fact that he had achieved his ambition. This numbed the pain of his bruises, it offset the soaked and inefficient clothing, the long days at the beck and call of many masters, careless of his comfort, his aching body, tired legs and arms, it made all things a wonderful apprenticeship, a glorious experience leading to the day when Captain Ben Martin—Captain Ben Martin the Third—would shoot the sun and cast a shrewd eye along the horizon, over the sky, the swelling canvas, with a wise look to the binnacle, a word to the quartermaster at the wheel and snappy orders to the hustling crew,

That day would come—Ben was sure of that. His grandfather had started as cabin boy though his father had the advantages of a start he did not bestow upon Ben the Third.

Ben's mother had fought against her only child going to sea. It was a cruel monster, she declared, always lying in wait, deceitful and treacherous. She had married a sailor but she had not given birth to one.

She had, though she would not acknowledge it, even if she secretly feared. Ben was brought up to imagine his father engaged in a precarious calling that was far from enviable. Yet the salt was in the boy's blood. It went back many generations with here and there a skip but ever a return. He loved to hear his father's tales and from him he learned how to tie knots and the canvas and rigging of schooner, barkentine, brig, bark, and full-rigged ship. From such talks and lessons his mother would hale him out and he would hear her voice lecturing his father on the folly of putting wrong ideas in the boy's head.

From one voyage his father never returned—was never to return. And in time the widow, with her eight-year-old Ben, married again. The new head of the household was a contractor, a builder of small houses, a big man with harsh ways and little love for Ben.

Five years passed and the influenza left Ben doubly orphaned. The scowl his step-

father cast on him when they returned from the funeral told the lad that he was no longer welcome in that house. Soon he was thrust into the attic from his own bedroom and barred from the rest of the house except the kitchen by the sister of the man, who had come to keep house for him. They made a drudge out of Ben, they unwillingly gave into the school authorities, they made it very plain that the moment Ben was going to be able to earn his own living he would be expected to do so. So ran their talk while they expressed their opinion of his incompetence. Yet Ben knew they would not lightly let him go, just as he knew that he did the work of a paid servant who would not have suffered his accommodations.

Ben did not mind the attic though it was sometimes bitter cold. He hauled his cot and insufficient bedding close to the central chimney, hugging its warmth, supplementing his covering with odds and ends of old clothing, rummaged from the attic trunks. There was an old pea-jacket of his father's that did more than keep him warm.

He could finger the buttons of it in the dark, feeling the anchors embossed there and finding them magic buttons that, pressed, let him through to another world, another element. The sloping walls disappeared, the uneven boards of the attic became the deck of a ship, the deep sea was all about him, with the stars shining overhead and the winds blowing on him as he sailed.

There were dreams in which he walked the poop and watched the rigging of a plank out on which his stepfather and the sister were presently to be pricked by cutlasses and prodded by pistol barrels until they fell off the end to the expectant sharks. How they pleaded with him. At last he condescended to maroon them, sending them off in a small boat with a small keg of water and one of salt horse.

Other nights he sailed over purple seas that creamed as they broke on dazzling sand where a crescent beach sloped gently to waving coco palms and savage figures rushed down from the bush, brandishing spears and clubs. Always Captain Ben Martin the Third, cool and resourceful, was in command, the admiring crew jumping to his lightest word.

The memory of such dreams held through the days. Slowly a purpose crystallized from them.

There were other things found in the attic. Ben was usually roused from there before it was light by a vicious alarm clock; usually he crept up there in the dark, forbidden a lamp or matches for the fear of fire. But there were rare times when the house was empty, save for himself, and his tasks were forward enough for him to steal up to the attic—to mount the ladder to the poop—and there haul out two treasures.

One of these was a small lithograph, about the size of a postal card, framed in dark wood, the colored picture of a brig brought to the wind. It was an unnamed craft but his father had bought it once because it resembled the *Nancy,* the brig that he commanded.

The other was a box made of mahogany, brass-bound, lined with green felt and holding a strangely shaped instrument. It was the sextant of his father and his father's father—the latter had called it a quadrant. With it they had determined the altitude of sun and stars, the angular distances between stars and other objects, with it they had determined their position on the water wastes and won their way to distant shores and back again to home.

Ben knew how it was used, how to hold it properly, how to peer through the telescope and swing the vernier over the graduated arc, set in a slip of silver. He could

"What about your folks?" demanded Captain Bedford

do nothing with mathematics of it, so far, they were a closed book to him, but he could imagine.

It was the best kind of magic. Light coming in through the grimy attic window, the little picture propped up in front of him on a beam, the sextant in his hand and—presto—he was off in broad daylight!

Such books as he found time to read were stories of the sea. Their contents were like water to a thirsty flower.

There came a day when one accident followed another in the house, for all of which Ben shouldered the blame, for part of which, harassed and driven, he was responsible. There came the evening with the contractor's return, disgruntled by the insistence of an inspecting architect, seeing profits turned to losses; the recitation of the day's woes by his sister, Ben brought to judgment for the sins of many a scapegoat.

"Get out of here, you dirty, ungrateful brat! I'm tired of feeding you out of charity!"

Ben was dirty—that he could not help. He had been washing fouled pots, he had been scrubbing dirty places, toiling in the cellar. He could think of nothing he should be grateful for and the word "charity" stung.

Something like a cold fury possessed him and showed in his gray eyes. He felt strangely cool though the blood was hot in his veins. The contractor was three times a match for him but he could not quite meet Ben's look.

"All right," Ben said slowly. "I won't be here in the morning."

He did not know that brother and sister gazed at each other with the fire of their anger suddenly slackening.

"Suppose he'll cut and run?" asked the contractor.

"It 'ud be just like him," replied his sister. "But he won't. He's not a fool. He knows where his bread is buttered and where he gets it."

"Not much butter, I'll be bound," said the contractor and then they both laughed.

But Ben was out of the house before they were awake, walking through far Brookline and through the narrow confusion of Boston's streets to the wharves, an old grip of his father's in one hand, stuffed with his miserable wardrobe; in the other the sextant.

"What about your folks?" demanded Captain Bedford before whom Ben presented himself that same afternoon, hungry, discouraged, but with a gleam still in his gray eyes. If Bedford had not happened to need a cabin boy and Simpkins, the first mate, to know of it, Ben would never have won through to the cabin. To him it was a treasure house, Bedford a majestic figure.

"I haven't any," said Ben. "My stepfather told me to get out. My mother is dead."

"Lazy?"

"No, sir." He said it stoutly and Captain Bedford's cold eyes, appraising the lad's strength and willingness, showed a faint spark of approval at the tone.

"How old?"

"Fourteen, sir."

"What's your name?"

"Martin, sir. Ben Martin."

Again there came a flicker of speculation in the skipper's gaze.

"All right," he said. "I'll sign you on. We sail tomorrow. You can meet me at the Commissioner's in an hour. You'll get eight dollars a month and food."

Ben did not know where the Commissioner's was. He waited, watching Simpkins oversee the lading of the ship, running errands for him, and, when the skipper went ashore, he trailed him.

"Wait here," said Captain Bedford, as

he saw Ben at his heels by the office door. What he said to the Commissioner Ben did not guess but he was not asked any questions about his folks, relieving the fear that they had power to drag him back. That night he helped the steward to serve supper in the cabin.

And ever since he had been happy. He had won through to his magic. It gave him heart ease despite aching limbs, despite seasickness, despite what must have been drudgery save for the wonder of being at sea. He never tired of the sea, even when he feared it, as he often did during the days and nights that they fought to round the Horn. He loved its changing moods, it was a lullaby to put him to sleep and turned his rude bunk into a cradle of comfort as he heard it boom and crash and thunder against the ship, it gave him energy when he came out on deck, perhaps in the middle of the night when the call of "All Hands" included him.

Then the seas rolled black like moving hills sometimes laced with phosphorescence. They were blue, purple, green, and gray, they were never the same and the sky above them and the winds that blew over them told Ben that he had come into his own. He had suffered a sea change, drunk a wizard's draught.

His hours were not too long for him. He had to be on deck every time eight bells was struck, save at the end of the middle watch at night. He actually put in more time than the regular crew but he never tired of going on deck, even when his eyes were glued with sleep. He was learning all the time and he had more knowledge stowed away than was suspected. With what his father had taught him brought fresh to mind by being actually aboard, he soon knew every rope, sheet, brace, and halliard, every stay, every sail with clew and tack and downhaul. When an order was given he followed it with his eyes, knowing just what the men would do.

A few times he had been aloft and that too he loved. His was the true seaman's inheritance, sure foot, sure hand, sure eye. No dizziness for him. All he lacked was greater strength to control the windful canvas and that was coming to him for he fared well enough in the galley where the cook by turns abused him and made a pet of him in a rough way.

"The lad's a born sailor," he would tell the crew. "Wait till he gits length an' strength, he'll crowd the best of ye!"

Such praise was music, lightening the hundred tasks below deck, the work in cabin and galley, the bedmaking, sweeping, dishwashing, and serving.

The skipper took scant notice of him. The mates sometimes vented their ill humor on him but his willingness spared him a lot. What he yearned for most was a chance to really enter an apprenticeship as a sailor, to help work the ship, not merely work on her as the steward's helper.

Thus he invested every man aboard who was a seaman with something not far from reverence, as a novitiate looks on the master craftsman. The skipper and the two mates, shouting orders in a storm, with the men hurrying to haul, to climb the swaying masts and fight with the rebellious canvas, were demigods. And one day he would be one of them.

They did not know it, they did not know he was sailor born but he would show them, and he hugged his secret. To tell them would be to provoke laughter. They rated him only a landlubber, they did not guess at his magic birthright. They did not guess the ability that the salt winds, and the surging blue swell called up within him. Some day—some day soon they would know.

There was one fly in his ointment, his demigods only appeared superhuman in

their work. At other times they were far from demigodly. There was bad blood between the first and the second mate, the skipper and the first mate were over-civil with their "mistering." Between the first and second there was jealousy, between the skipper and the first it was a question of seamanship.

Ben was not sailor enough to understand the reason, nor were the men in the forecastle, though they took sides. Ben heard them sniggering about the "dressing-down" the old man had given the first. A matter of judgment as to a change of sails in a midnight shift of wind. The mate had resented it and taken it out on his watch and the skipper, who had not turned in, rounded on him. Ben had heard that.

"I'll not have the men hazed, Mister," said the skipper. "I need no bucko mate aboard this ship. I do my own bullying."

"There's no doubt about that," the mate muttered, a thought too loudly, and Captain Bedford had turned on him.

"What's that, sir? What's that?"

The mate spat sullenly to leeward.

"I said I'd attend to that, sir," he answered finally.

"See that you do, or I'll attend to you. I'll have no words flung back at me. You can't teach me *my* business, Mr. Simpkins. Don't try or you'll lose the handle to your name. I'll disrate you."

The men heard. That was what rankled in the soul of the mate and he showed it. Some of the men in his watch revealed that they accepted his part-time-serving only for the favors he could show them. The harmony of the ship was gone. The skipper wrapped himself in the dignity of his office and the first mate rode the second. Not all the smiling sea and sky, the warm sun and favorable wind could dispel the gloomy spirits of the crew, cabin to foc'sle. It was a ship beginning to be divided against itself.

And the next day was Christmas.

The cook sent Ben to the steward for an issue of raisins to make a real plum duff, a regular custom.

"There'll be no Christmas cheer aboard this v'yage," said the steward. "I'll not ask the skipper in his mood. I'm not anxious to have my head snapped off. Let cookee ask him if he wants to. Not me."

The news spread. The cook did not tackle what the steward evaded. And the foc'sle became a gloomy place. Some blamed the mate and others cursed the skipper. Ben wondered and worried.

His father had told him of Christmases at sea, when fiddle and accordion sounded for'ard and there was a good cheer aft. Peace and goodwill, talk of home with songs in the middle watch and discipline relaxed. It was the time for mending quarrels, when seamen became comrades and swore fellowship beneath the stars, some of them thinking vaguely of boyhood Christmases beneath a sheltered roof, beside a glowing fire, a tree full of simple gifts and topped with the tinsel emblem of the Star of Bethlehem. Ben thought of these things. Once he had found a copy of Robinson Crusoe in his stocking and his mother had read it aloud to him. She had used it as an example of the perils of the sea, little knowing how her boy's heart had leaped to the adventures of the marooned mariner.

There would be no tree aboard, no fire, but should there not be gifts? There had been on his father's ship—for all hands. He could not compass that but—what if he brought Christmas into the cabin?

It was a simple thought but it was born of the simplicity that is sincerity. Ben thought out his gifts and worked on them. He held back the little picture of the ship that looked like the *Nancy*. It was in his bunk, underneath the scant mattress. And his father's pea-jacket was under the pil-

low. He fingered its brass buttons nightly and he dreamed that his father told him, in his deep, kind voice, that he was doing the right thing.

The first mate broke in upon his musing as he tied off the thread of the last bead in the S. He had turned the bag inside out for this and it looked just like something a boy might make for himself. The mate snatched it from his hand, gave it a swift inspection and flung it on the deck. Wind breezed it to the scuppers with Ben's eyes on it fearfully.

"Malingerin', eh, you scallawag!" bellowed the mate, his voice as rough as if he was accusing the lad of murder. "We'll have none of that. I'll find somethin' for you to do."

It was unfair. Ben's work was done for the time. His next call would come from the galley. This was his own time, if a cabin boy ever had right to leisure.

"I'll teach you," said Simpkins, "litterin' up the deck."

That stung. Ben's fingers were sore where the needle had pricked him working over the gift that Simpkins called litter. The mate's eyes burned, his face was deeply flushed beneath its tan. Since his encounter with the skipper, when the captain had talked of disrating in front of the crew, the man's temper had been set on a hair trigger, the least provocation released it and a fiery burst of rage.

It was plain enough, even to Ben, that the ship was nearing the condition known to old salts as a "sour ship." First, the trouble between the officers and, last, the word that Christmas privileges were not to be recognized had brought about an atmosphere that was as dangerous as choke damp in a coal mine, tricky as dynamite. When men grow silent and brood over their troubles there is bound to be an accumulation of compressed resentment that is ripe for explosion. Small things count on shipboard where one man may not get away from another.

The cook and the steward, wise men both as far as experience went, shook their heads and whispered together.

" 'T will be luck if we make port 'thout bad trouble," said the cook.

"An' there's no sayin' will it break fore or aft," agreed the steward. "Simpkins is sour, an' he's packin' a gun. The skipper bawled him out in front of all hands an' threatened to disrate him an' send him for'ard. Simpkins 'll not be peaceful. There'll be blood spilled first, you mark my words."

"There's a pile of the men back of him," said cookee. "Unless somethin' clears the decks there'll be mutiny on the high seas."

"Nothin' 'll clear that off except a miracle," replied the steward gloomily. "You don't wait on 'em an' see 'em gloomin' at each other. All the misterin' in the world, an' politeness so thick that it's an insult."

Ben had seen and sensed all this too, as he helped the steward and the cook and listened to fragments of their talk together.

"Blood spilled—mutiny on the high seas!" His father had told him such things, the shame and disgrace of all seamen. Already there were covert looks between the men. The first mate's watch had drawn apart. The trouble in the cabin was reflected in the foc'stle.

So the spirit of discontent brooded and trouble was hatched under the shining, windy sky as the ship fled north and the porpoises gamboled in her wake. And so a lad dreamed of high traditions of the service, handed down to him, and thought that he could work the miracle the steward declared necessary.

There are times when a miracle is the direct answer to prayer and often the most effective prayer needs no voicing. Clean thought engenders prayer without petition.

Ben crouched to dodge or receive the blow he felt was imminent from the mate's uplifting arm and the red flecks in his eyes. There came a call.

"Land ho!"

"Where away?"

"On the weather bow, sir."

"Go tell the Captain," the mate ordered curtly.

Ben darted off, snatching up the canvas bag as he went, like a bird swooping on the wing.

"Land," said the skipper with a scowl. "That'll be Juan Fernandez."

"Robinson Crusoe's Island," said Ben, without thinking. For all his reverence of the skipper's position Ben could not help but be ingenuous at times.

"What's that?" demanded the Captain, taking his binoculars from their hook.

"I said Robinson Crusoe's Island, sir."

"Robinson . . . ? Hmph!"

The Captain went on deck without another word but Ben could have sworn there was the ghost of a twinkle in his eyes, the twitch of a smile to his mouth. It gave him better heart for his experiment.

The men had gathered by the rail, hoping against hope for a run ashore. Fresh meat and water, fruit and vegetables were there, a hearty welcome by the inhabitants. It was Christmas. They strained their hearing to catch what the skipper said to the mate when the latter reported stiffly.

"San Juan Fernandez, sir, four points off the weather bow."

"Very good, sir. You'll keep your course, Mr. Simpkins. And you will kindly find something else for your men to do than loll on the rail."

The skipper swept the horizon and focused his glasses briefly on the land, then went below as the mate, almost black with anger, set the crew to work. Ordinarily the deck would be specially holystoned for Christmas, the brass work polished to a special dazzle. This had not been done but he set them at it.

Slowly the wind that had been with them began to fail. The sails hung listless. By evening there was a dead calm. The island was no longer on the weather bow, for there was no weather. It rose in a blue mount to the west against the gathering glory of the sunset and the ship seemed held where she was, as if the island had been a lodestone and the *Southern Star* a bit of sensitive material hovering on the outer zone of attraction. It was still there when the stars came out. If anything, there seemed to be some current that slowly drew them closer though that might well have been the illusion of the change of light.

Here it showed, abeam on the port bow, like the meal of Tantalus, while the watches gathered together and muttered in low tones with oaths and threats that so far were idle. The sea was like glass with only the long heaving of the swell to make the reflections of the stars streaks instead of points of light. The night wore on and the moon came up and still there was no breeze.

They had drifted closer in the night. The lifting sun touched the crags where Crusoe had hunted goats, with a crimson brush. It was Christmas morning.

There were no greetings as the watches changed. The crew went off deck sullen and mounted to their work in the same disaffected fashion.

The second mate relieved the first so that the latter might breakfast with the captain. The two officers met without a word or nod. The steward pursed his lips and shook his head sagely at Ben in the pantry. Ben could feel the tension between the two men. A gathering hatred in the mate. Hardening determination in the skipper to enforce the full extent of his authority, also full knowledge of the

attitude of the men in the situation.

The steward set a cup of coffee by the captain's right hand as Captain Bedford took his seat. The skipper reached for it, then his eyes became fixed, stony in their cold regard of the quartermaster, who came part way down the companionway, knuckling at his grizzled hair. He was almost the oldest seaman aboard the *Southern Star,* the best helmsman and one who had been many voyages under Captain Bedford.

Again the steward looked at Ben as if to say, "I told you so." Ben knew enough of such matters to feel that here was the warning of coming collision between the fore and after guard.

The skipper glared without speaking. The intruder looked uneasy but resolute.

"I've come on 'count of the men, sir," he said huskily. "They'd like you to give 'em a hearin' at the mast between now an' eight bells."

That meant twelve o'clock noon. Eight bells had just sounded as the officers went down for breakfast. Captain Bedford's eyes dilated, narrowed, the veins on his face and neck swelled until it seemed they must burst. The audacity of the men setting a time for the hearing of their complaints roused him to fury. Any hearing of this sort was an imputation that the captain's methods were unsatisfactory and Captain Bedford was the last man to hear himself criticized with complacency. But his voice, when he spoke, was quiet and even, though his eyes were full of menace.

"All hands at the mast at four bells," he said. "I'll give them a hearing. Will you ask Mr. Hansen to kindly step below, with my compliments?"

The steward stuck his tongue in his cheek. It boded ill for Mr. Hansen that he had let the old quartermaster descend to the cabin though it was his right of complaint that took him there.

"And fetch my gun from my cabin, steward," continued the captain, not lifting his voice but somehow putting a ring into it that carried it to the ears of the old quartermaster as he went up the companionway.

"You'll be needing yours, I'm thinking, Mr. Simpkins, if you're to back me in this," went on the skipper with a searching look at the mate.

"Blood spilled!" Ben could see the red stains on the planks. His experiment had not worked. It could not work now that the challenge had been passed. The skipper would tonguelash the men, gun in belt. What would the men do? What would the first mate do? The second, after the captain's anger had broken on him?

The first mate sat glowering at his plate, his fingers working nervously, pinching up the cloth. Then they encountered Ben's gift, set on his napkin, but he did not appear to notice it as anything strange to the table.

The steward came from the captain's cabin with his revolver in a holster, a grim emblem of trouble and death. The second mate came slowly down the companionway, a tall, fair man, his face troubled.

Captain Bedford raised his hand impressively as Hansen stood at the foot of the table opposite him.

"Mr. Hansen," he said in the quiet tone that suggested the grating of sharp steel on sharp steel, "would you mind telling me why . . ."

The second mate's face flushed and he stiffened. The skipper's hand descended and touched the mahogany box, brass-bound, that had been set at his place.

"What's this, what's this?" he asked as he looked at the case, guessing its contents.

Ben took his courage in his hands. But his voice trembled a little.

"A Merry Christmas to you, Captain Bedford," he said.

The skipper turned in his seat and looked hard at his cabin boy. Ben's eyes were filled with a light that seemed to illuminate the captain's mind. It may have gone deeper. Slowly he opened the case and took out the instrument, polished to the last degree of shining by Ben. He turned it about wonderingly while all in the cabin stood or sat motionless, their gaze centered.

"Benjamin J. Martin, 1865," read off the skipper. Then "Benjamin J. Martin, 1897."

A change came over the skipper.

"You're making a gift of this to me, my lad?" he asked.

"Yes, sir."

"This sextant was your father's?"

"Yes, sir, and my grandfather's."

"What was your father's last ship, my boy?" The cold voice was warming.

"The brig *Nancy,* sir."

"Martin of the *Nancy*. Lost at sea." The skipper spoke as if to himself.

"Why do you want to give this to me, my lad?"

"It's Christmas, sir. I thought you'd like it. It was the best I had."

"The best. Aye, surely that."

"He gave me a luck piece, cap'n," put in the steward. "His father gave him that, too. Got it in Pekin. I didn't want to take it."

"What's that you are handling, Simpkins?"

The first mate twisted about the beaded bag.

"It's for your chewing, sir," said Ben.

Simpkins had a recollection of having seen the canvas bag before. Remembrance grew plain. He swore softly under his breath, not in a curse but in forgiven condemnation of his eyes.

Ben, his spirit mounting as the mercury mounts when the temperature turns from cold to warmth, produced the tobacco stopper and explained its use. Hansen took it and held it in the palm of his hand.

The captain stood upright.

"Gentlemen," he said, "the lad wishes us a Merry Christmas, and he gives us his best gifts. I think that perhaps we have all forgotten the day. I pass on to you his greetings. A Merry Christmas to you, Simpkins, and to you, Hansen."

He shook hands with them. Then with the steward and, last of all, with Ben. The air in the cabin seemed sweeter, purer.

"The lad tells me," said the captain, "that the island off our beam is Robinson Crusoe's island. I had almost forgotten that, too. Mr. Simpkins, if a breeze comes, head up for it. The men might like to spend Christmas ashore. Steward, see that the cook is given supplies for a good dinner. Tell the cook to do his best. That's all, gentlemen, except our breakfast. Ben, I'll have a word with you later."

They were all standing with their eyes shining and their faces cleared. The spirit of goodwill was with them. The miracle had happened.

"I can't take the sextant, Ben," said the captain, later. "It's yours, my lad. You'll have your name on it some day. Why did you come to sea? Just because you could not live with your stepfather?"

"No, sir. I wanted to be a sailor, like my father."

"And like your father you shall be. I knew him. You've the makings. We'll ship a boy at Lima. We'll change your rating, Ben, to apprentice."

Captain Bedford had not looked forward eagerly to the meeting at the mast.

When that meeting came the crew appeared shamefaced. Word had gone out from the galley. Already there were savors of holiday fare about the ship. It was the cook who saved the situation with a word in the old quartermaster's ear.

"What is it, men?" asked Captain Bed-

ford, dressed in his best serge and braid.

The ancient mariner stood forward. He wiped his mouth with the back of his hand.

"We'd like to wish you a Merry Christmas, sir," he said and stepped back.

"Three cheers for the skipper," said some one and the huzzas went up.

"I wish you the same, my lads," said the captain. "The calm holds. It is too far to tow. To-morrow we may have a wind. We'll make a landing for a run ashore and fresh provisions. Meantime we'll spend our Christmas aboard. Make it merry."

He turned away, maintaining discipline, affecting not to hear the voice suggesting cheers for Benny Martin.

Take the Case of Scottie

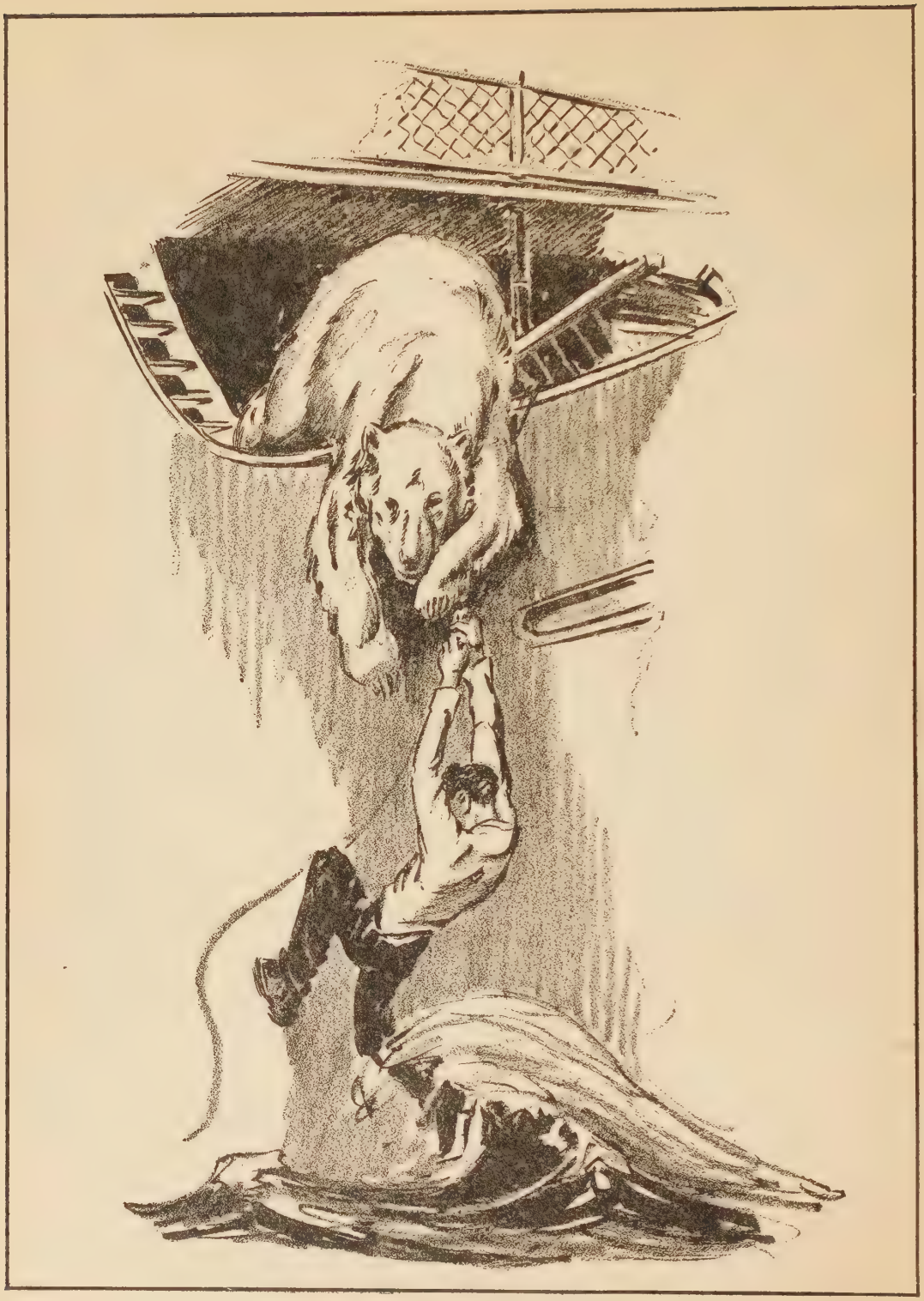
By Frank H. Cheley

UNDOUBTEDLY, one of the factors in man's universal love and appreciation of a good dog grows out of the fact that of all creatures he is the faithful one. No matter what the emergency, if the dog is a thoroughbred, he may be relied upon.

Recently, the son of a Montana rancher was riding a bronco that had been in the habit of bucking, but which he always before had managed to control. This day, however, the bronco threw him from the saddle but his belt caught on the saddle horn and he dangled at the side of the horse. This made the animal frantic and after a wild dash off into a barren, unfrequented arroya, with Scottie, the Scotch collie, barking wildly after him, he finally managed to shake the rider off. The boy was rendered unconscious by the fall, and remained so for several hours. When he recovered consciousness, he found he could not get to his feet, and the horse was nowhere in sight, but close to his side was the faithful dog. All day long he lay helpless in the scorching sun, weak and sick and parched for water. That evening when the sun set the boy made frantic efforts to reach water. Grasping the sage bushes he managed to drag himself painfully forward until he reached a tight wire fence that blocked progress. All the time he had talked to Scottie almost incessantly, and finally the dog dashed off and disappeared, only to return in a few moments dripping with water. The boy buried his face in the dog's long hair, quenching his thirst. Again and again the dog went and came with his strange drink, and finally when his young master lay more comfortable on the ground, the dog crept off to a bit of a bluff and howled his alarm the whole night through.

Morning brought a rescue party, and the boy was saved. It is that same spirit that makes true leaders stand out from the crowd, and if dogs can acquire it, why not boys?

"I've come on 'count of the men, sir," he said, huskily.



The bear was crazed with wrath.

A Perishable Shipment

By Leon W. Dean

Illustrated by Morgan Stinemetz

PROBABLY as queer a shipment of perishable express as was ever received by the Champlain Transportation Company was a polar bear billed in from the Arctic. There was really no need, so far as quick transit was concerned, of sending him by express. No one would keep him on their hands longer than was absolutely necessary. His captors had not bothered to tame him before changing his residence. The result was an unholy desire to get loose and kill somebody. He would accept meat from his keeper, but, if actions were any indication, would far rather eat his keeper. In the end he all but succeeded.

The Champlain Transportation Company operates steamers on Lake Champlain and Lake George. It was on the *Ticonderoga,* a Lake Champlain boat, that the creature was handled. He came off the train at Burlington, and was to be taken across to Plattsburg, en route for the famous Miner Estate at Chazy.

When the freight rustlers, most of them young fellows, saw him, they threw up their hands, signifying that they had taken a crack at about everything and now the list was completed. A polar bear was the last straw. He was in a cage, but he was also in a rage. Which would survive, the cage or the rage, was a question. It was the keeper who took charge.

"Well, fellows," he invited, "I reckon we've got to load him!"

So they went at it. After all, it was a rather novel situation. Young blood answered the big bear's challenge, and, as a crowd began to gather, they got busy. It was not only a weighty proposition, but, despite the safeguards, a dangerous one as well. They got levers beneath the cage and then blocks.

Meanwhile, it really seemed as though the animal would go insane. He roared and flung himself. The whole structure rocked at the impact of his open-mouthed plunges and the terrible blows he dealt. The police had all they could do to keep back the growing cordon of spectators and give the workers room. From blocks they progressed to rollers. The bear did his best to reach them through the interstices of the bars, but, although there were plenty of narrow escapes, he never quite succeeded. With long poles they began to push the cage toward the gangway. It was when they reached it that there was a little more excitement, but they finally got the rollers arranged right and once more moved forward. The boat tipped a little as so much weight came upon it, but the slight incline was safely negotiated, and the cage at length placed on deck. It was then the turn of the automobiles, and the vessel was soon ready to cast off.

Lake Champlain lies between the Adirondack Mountains on the west and the Green Mountains on the east. It is over a hundred and twenty miles long, and when a strong wind comes sweeping down its valley it can kick up a goodly sea.

That was the way of it on this day. It

was the fall of the year, and a north wind was blowing. The cage was up in the bow. In order to keep the boat balanced, it had been placed midway between the two sides, and its rollers blocked. Many persons were watching, but no one noticed anything out of the way with it.

When the boat put in at Port Kent it was all right. On the way between Port Kent and Plattsburg things went wrong. The boat was headed straight into the waves, and rising and falling considerably to their buffeting. It was a movement that must gradually have weakened the blocks, and one of them finally gave way.

"Look out! It's going!"

That, as the cage lurched and began to move, was the first warning. It might not have been the exact words, for there really were no words, but it was the meaning of the confused shout that went for words. Once started, the huge structure could not be stopped. It was too big and heavy and awkward. Three or four of the deck-hands were standing about, and they jumped to do what they could, but they could not do much. One of them, in his haste, almost forgot himself, but the big bear never. One swipe of the paw laid bare the man's shirt, and took part of the skin of his back along with it. Faster went the runaway cage, and faster. They tried to re-block it, to hold it with the poles, hurriedly grabbed up, but it had a start and was too much for them. It had not far to go, and soon crashed into the gunwale. The stout wood creaked and gave at the impact, but did not break. It was the cage that broke.

"Look out! He's loose!"

Once more it was an inarticulate cry, conveying its meaning, but not in words. It had all happened so quickly that up to this time not many had moved. Now, however, they got into action. Men leaped from their cars, and the deck-hands ducked where they could, into any opening that suggested safety. Only one stood up to the emergency, and that was Roland Ross.

Roland was a boy about seventeen years of age. He was on the boats because he must work at something, and liked them. If he had had his choice, he would have gotten an education, but that seemed impossible. His money was not needed at home, but his people did not have much, and he had to support himself. He had been part way through high school, but then had to go out on his own. Whatever he did, however, he did well, as a boy of intelligence and ambition, and he now fought back the bear.

The cage was sturdy. Nothing in all its journey, not even the attacks of the irate beast within, had sufficed to stir its iron bars and joints, at least to a point where the defect would be noticed.

But now, as will sometimes happen, it had struck just right and given way, one corner caving a little and spreading the adjacent bars, loosening them in their sockets. The bear, quick to take advantage of the opportunity, had thrust in a fore-paw and shoulder, and now with all his giant strength was seeking to squeeze through.

The boy, with a long two-by-four joist, was striving to thrust him back. He used no gentleness at all, but leveled the thing like a battering ram, and jammed it into the beast. The force, it seemed, was enough to crush the animal's ribs, but, though once or twice he flinched, he came back for more, and it could not stop him. He was too angry to feel much pain, and his great body was almost invulnerable to any injury short of a rifle shot.

"Help!" called the boy, in desperation. "Help!"

He knew what it might well mean for the brute to get free among the passengers,

but there seemed no one who wanted to share with him the risk. The bars, powerful as they were, now that they had started, were yielding more and more. They could not withstand the avalanche wedging itself between them. The keeper and one or two of the boat's officers, having got an inkling of what was going on, came running, but were too late. The bear burst through as they put in an appearance, and the boy himself had to make a quick dash for safety, the shouts of the men augmenting it.

"Beat it!" they cried. "He's coming!"

And coming he was. The boy, dropping his prod, was fast, but the bear, notwithstanding his immense size and apparent ungainliness, was faster. He was almost upon him as, accepting about his only chance, the boy flung himself over the rail. He did not go into the lake, but, seizing a rope as the bear struck above him, hung on.

The animal's last lunge carried him almost off his feet, and laid him asprawl of the rail. A foot or two below him, with arms upstretched, dangled the boy. He was temptingly near, and the bear was crazed with wrath. Without waiting to regain his balance, he reached down, swinging hard with his paw. For once he miscalculated, and toppled. Unable to recover, he tumbled headlong for the lake, wrenching the boy from his hold as he swept down past. Even as they went, orders began to ring out.

The boy, struggling in the water, could hear vaguely only. The boat forged by, all but engulfing him. Then he was being left astern.

"All hands to the boats!"

The captain may have arrived on the scene a little late to do anything, but he was making up for it. As by magic, men sprang into being.

"Number Six! Stand by! Lower away!" His voice was commanding.

One after the other, in quick staccato succession, the orders came, and the men, with a promptitude and certainty that bespoke numerous rehearsals, responded. Number Six boat, which was a small one on the deck where the cage was, began to glide from the davits, and, as it went, its crew piled in. At the same time, to the sounding of gongs in the engine-room, the steamer was coming to a halt. It lost headway, swinging off, and the boat struck the water with a splash. Almost at once the men had the oars and were pulling.

Back several hundred yards Roland was having no easy time of it. He could swim well, and was making the most of his ability, but one arm had been somehow hurt as the bear hit him, and it handicapped him. Besides, the animal itself was near, and, after paddling aimlessly about for a while, as though confused, turned on him. Had there been shore near, it perhaps would have made for that, but there was not, and, the water of the steamer still tossing them, it resumed the assault.

"Watch out!" called the helmsman of the small boat. "He's after you!"

And then began a race such as the boy had never dreamed of. A polar bear is the most at home in the water of all four-footed animals. The boy struck out desperately for those rowing toward him, but it did not seem as though he could reach them. The white head of the bear slid through the water as though something inanimate, a relentless machine, driven by a diabolical power beyond mere bone and muscle. The men, straining at the oars, sought to beat him, and so did the boy, but he gained fast, each instant lessening the distance. The boy, in spite of his injury, shifted to the overarm stroke, and frantically increased his speed.

"Ross!" sounded the excited cry of the

helmsman. "Come on, Ross, come on!"

His breath was drawing hard, his strength forsaking him under the terrific pace, but he kept on. The helmsman was steering a clever course. The boy, with the bear not a yard behind, dodged. He dived and shot off sidewise.

It was clumsy perhaps, viewed from the standards to which the bear was accustomed, but it served. It might have been the unexpectedness of it. Or it might have been the shouts of the men in the boat, so near now as to constitute something of a menace. Anyhow, the ruse worked. It gave the boy an instant's time before the bear again pressed him close. Instead of being between the bear and the boat he was now off to one side, furnishing the men an opening that they had not had before.

In the boat, always ready for use, there was a coil of rope. The bear's keeper was aboard, and, as the craft drove in within a few feet of the racers, he caught it up. He was no expert with the lariat, but knew how to handle one, and the failure of the bear to close when he might gave him a chance to throw. It was a good cast, the noose settling about the animal's neck. The others were holding on their oars, and the boat had come to a stop.

"Row!"

It was a quick command, without any preliminaries, and they obeyed. There was no particular teamwork about it perhaps, but they got started, and the rope, which the man had drawn tight, began to pull. The bear, the instant he felt it, had begun to fight, and now, without the slightest delay, he turned on the boat. The way he did it, the abruptness and boldness of it, was disconcerting. He nearly had it. The fear of the men as they pulled was all that saved it. Even as it was, the rope went slack, and he got a foreleg over. That complicated matters. It broke the force that was being brought to bear on his neck, and the heavy fur also helped him. What possibility there had been of choking him into submission was spoiled. Moreover, it brought the rope down to where he could get at it with his teeth. There was only one thing to do, and that was to stop and loosen up on him until it could be extricated. It spoke well for the keeper that he acted as decidedly as he did, but it brought the boat again into danger. It slowed, but the bear did not.

Nor was he obliging enough to raise his paw again and let the rope slip free. They could not outmaneuver him. He almost outmaneuvered them. More than once they barely slid free of his furious rushes. He could execute them in the water almost as an ordinary bear could on land. Whenever they did not keep him occupied he began to bite again at the rope.

It was while they were still working that he got what he wanted. They started away from him on the jump, for they were getting used to it now, but the jump was their undoing. There was just enough slack on the line so that, as it came taut with a jerk, it yanked them back a little, offsetting the pull of the oars. Before they could get clear, a sweep of the paw had caught them, carrying away a part of the stern.

It not only smashed things, but the animal held on, and, in the face of all that could be done to beat him back, began to fight his way aboard. The crew, excited, did their best to row, but could not draw away. Had it not been for the boy, they must inevitably have been swamped. He closed in on the bear from behind, and went at him with a daring born of the emergency, belaboring him with a piece of oar that the keeper had broken over him. An instant sufficed to do the work. The animal turned in a fury on its new assailant. Its leg was over the stern, and, as it turned, the keeper twitched free the rope.

"Row!" he yelled.

And again, as before, the men responded. The bear had not time to reach the boy before he was hauled back away from him. His fur was not enough now to keep him from choking, and he slowly began to strangle. They could have killed him, but did not. The only way he could ease up on himself was to swim, and they managed to adjust their pace just right so the strain would keep him coming, without completely suffocating him. In the end they got him to the steamer, and, with more ropes, they hoisted him back into his cage, temporarily repaired to receive him. The captain drew a sigh of relief.

"So much for so much!" he observed. "I'm glad we don't get them every day!"

The boat was an hour late into Plattsburg, and a big truck from the Miner Estate, the bear's destination, was already in waiting. The keeper said nothing at the time about what Roland had done, but two or three days later Mr. Miner himself met the boat at the dock. From his pocket he drew some bills of yellow denominations, and handed them to Roland.

"Use them wisely, my boy!" he adjured. "I believe you will!"

But Roland did not take them. The Miner Estate was built up about a great stock farm, and was one of the show places of the Champlain Valley. Its resources were not used selfishly, but generously. All that wealth could accomplish for a country community in the way of social and civic betterment was being accomplished. One of the farm's experiments was of an educational order. Expensive model buildings, containing the last word in equipment, had been erected. The best instructors that money could secure were brought there. Its advantages were open to all employees and their families. The boy, with the money offered him, refused it.

"If you don't mind, sir," he said, looking its donor frankly in the eye, "I would rather have a job."

Mr. Miner regarded him thoughtfully for an instant.

"Why?" he asked, at length.

"It's the school, sir. I want an education."

And he was soon, with a college course in view for the future, on the way to having one.

The Beach Master

By F. Douglas Hawley

Decoration by Francis J. Rigney

HE WAS free! The smooth green water of the great bay closed over him. With powerful strokes he put behind him the hated tank, the fetid smells of many animals, the nerve-breaking crowds of staring man creatures. Even yet through the depths he could hear the roar of the fog whistles and the grinding crashes of the two steamers still locked together in the mist.

Fear drove him on. The fog, the terrible cries from the circus menagerie crushed in the bow of the great ferryboat, the violent shock as his tank car was hurled into the bay—these were enough to drive from his mind everything but flight—swift, churning flight. Behind him streamed a smoke of opalescent bubbles. Faster, faster his torpedo-shaped body sped on. Instinctively, as he hurled through the emerald depths, he tasted the water. Saltier and cleaner it steadily became; he was approaching the sea. Soon there came to his ears the boom of the surf; the water cleared—he was at sea!

Gradually his fear abated, his little-used swimming muscles demanded rest, and his powerful lungs cried for air. Turning his nose toward the light, he shot upward. Half his length shot into the fog. Like a great cork he rode the slow rollers and restocked his lungs with oxygen.

Six feet from his sharp bewhiskered nose to his great double rudder flippers he measured, and over four feet around his fat sides. Five hundred pounds of supple, restless energy wrapped in a princely coat of thick dark fur—that was Matka, splendid specimen of Callorhinus Alascanus, the Alaskan fur seal. Matka (Maht-kah), the One Offshore Everywhere, the coastal tribes had called his kind before ruthless pelagic sealing had swept all but a remnant of the vast herds from the seas.

During his six years in captivity, Matka's alert mind had been unusually developed, and his body had grown from puppyhood to the full tide of maturity. Now he was free—free to follow the destiny of a Prince of the high seas. He decided to follow that destiny.

A flip of his oarlike fore flippers and he was away—away on a two-thousand-mile journey through the thick fogs and lashing seas of springtime in the mighty Pacific. Who charted his course for him? Could it be that the dim memory of his babyhood among the Pribilof Islands in the Behring Sea was sufficient to give him direction? What instinct told him to follow the hundred-fathom curve northward?

Many sea miles slipped behind him. He was passing over the great feeding banks. Suddenly he saw a streaming white flutter of ribbons dart into the depths before him. He instantly decided that he was hungry. Down, down through the darkening shadows he sped like a projectile. The "ribbons" waved frantically before him, but apparently in vain. He opened his mouth

to close upon them. Presto! They vanished in an inky cloud—a veritable smoke screen of the deep.

He was puzzled. Instinct told him the streamers meant edible seal food, but, owing to his long captivity, he had no practical experience to guide him. He swam on. Another knot of ribbons flashed past. As he turned to pursue it, from its folds jutted a sepia cloud. Calling for extra speed, he ploughed through the blinding screen, mouth agape. Tentacles brushed his long whiskers. Swerving slightly, his jaws closed upon his prey—two feet of writhing squid. He quickly devoured the oval body with its saucer eyes and ten long tentacles, spitting out only the big parrotlike beak of the creature.

Again on the surface, he lazily surveyed the immediate vicinity. No danger threatened, so he folded his tired flippers upon his breast and was asleep. Just that! One moment he was wide awake; the next he was sound asleep, rocking gently to and fro on the slow heaving sea. A full dinner, then sleep if possible: that is a rule of the wild. Four minutes passed—no more. As if warned by an intermittent alarm, Matka awoke, raised his head and sharply scrutinized the tossing surface. He closed his eyes again for another seal nap.

"Phut, phut, phut," echoed a muffled beat of sound somewhere in the fog. Wide awake on the instant, Matka raised his body half out of the water and tried to locate the sound. Suddenly the black prow of a motor dory leaped out of the gray. He heard a shout, and it pointed directly at him. As the knife-edged keel cut down upon him, he dove cleanly.

Matka was curious. Surely that shout was made by a man, and he had learned to love the voices of his trainers and keepers. Perhaps these men were playing with him. He would see, so a little to one side he bobbed up again. The motor boat was swinging in a circle with himself as the center of it.

"Tony, the rifle, quick! It's a fur seal, worth a hundred dollars!"

As Matka, looking for all the world like a big friendly dog in the water, gazed curiously, trying to understand the strange actions of these men creatures, the dark visaged halibut fisherman in the bow excitedly fired.

Matka saw a little spurt of water where the bullet struck in front of his nose, and heard the sharp crack of the high-powered rifle. However, he was not afraid, for had he not been taught to fire a cannon in the circus! This was fun!

Thup! He felt a terrible blow and a red hot pain in the muscles of his thick neck. The men yelled in triumph as the seal rolled over on his side. Naught cared they for Matka's suffering, nor for the law which forbade pelagic sealing. They were drunk with the joy of the chase and the thought of the money the skin would bring from a certain dealer in ill-gotten goods.

The shock and surprise rendered the seal incapable of action for the moment, and this undoubtedly saved his life. The poacher thought him dying and hesitated to put another bullet hole in the valuable pelt. The bullet had cut through the great layers of fat and through some of the muscles of Matka's big neck, but, though the pain was great, the wound was far from being fatal. Confusedly his brain began to reason that there was something wrong—these men were not the friends that he had he had known—they meant to kill him. A shadow loomed over him. The grinning giant in the bow reached out with a boat hook to make fast the kill. Ludicrously the man's face changed. His boat hook hung poised over mere bubbles—his prey had vanished!

A mile away Matka came to the surface. By this time the layers of fatty tissue had

closed about his smarting wound, checking the flow of blood. Luckily no roving sharks had crossed his trail, else they would have pursued him like hounds on a hot scent. As he sped on northward through the spume of a rising sea, he avoided the few ships he passed. He had learned a necessary but bitter lesson of the sea folk: to shun man and his creations above all other things.

Days of storm-swept seas followed, for the Pacific belies its name in April. Health and clean salt water rapidly healed his wound, until all that remained were the scars and the memory. His natural instincts warned him of the more ordinary sea dangers. He allowed no formidable sea creature to catch him off guard. The larger species of sea lions he respected. Strangely, it seemed, he did not meet with other fur seals. He could not know that the scattered remnants of the once vast herds were traveling northward, too, in small groups—the bulls ahead of him and the cows behind him, while the partly grown pups were still playing along the Canadian coast line opposite which he was now swimming.

"Yap! Yap!" His keen ears heard the joyful sound, a fur seal's bark! He stretched his long thick neck to see. There, off to the left and moving parallel with him, was a group of shifting black spots, looking like bathers in the surf. Companionship! the world-wide call of blood, fellowship with one's own kind; the gregarious soul of the fur seal thrilled with it as he came tearing into the herd!

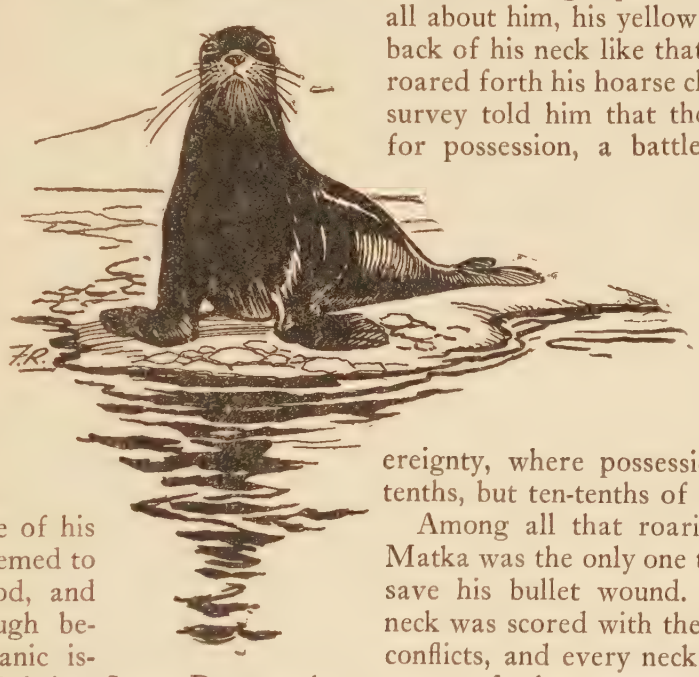
The thrill was his alone! The herd, composed entirely of adult males, seemed little concerned over his arrival, accepting him as a matter of course. The master thought of the herd seemed to be speed, hurry to arrive at the Pribilofs. As the herd advanced, the speed increased. Soon it would become a race to arrive first at the rookeries and stake out a strip of beach by right of possession—and prowess. As yet, however, the instincts of fellowship and safety in numbers prevailed. Along the Alaskan coast they swept, far out along the hundred-fathom line, gradually curving westward toward the passes between the Aleutian Islands.

One morning, as they were passing one of the numerous pods of smaller whales, one of the whales stood on its head and its great fluke smote the water with the crack of a three-inch gun. Instantly the whales wheeled and came tearing across the sea in front of the seal herd in a welter of foam. As Matka bobbed up he saw a crescent of six-foot dorsal fins cutting the water behind the whales. Ocra, the Killer, and his pack of sea wolves were upon them! The killers seemed crazed with blood. They hurled themselves upon whales and seals alike; cutting, slashing, tearing out great chunks of blubber, killing wantonly like land wolves in a flock of sheep. In a few moments they had killed many times the food they could consume.

A twenty-foot killer struck a whale calf directly in front of Matka. The calf's mother brought down her ponderous tail-like fluke with lucky aim and literally crushed the killer's head into pulp. Two more sea wolves closed in, tearing at mother, baby, and their comrade alike. As Matka darted away in a panic of fear, he sensed the rush of a great body behind him. Closer and closer drew the killer. Matka's heart almost burst in his efforts for more speed as he felt death close upon him. The water swirled before him—he dove under a madly swimming whale—Ocra struck the more slowly moving animal, and Matka was temporarily saved.

Wildly the seal charged through the sea. Unwittingly he had chosen a course opposite the general direction of the flight and carnage, but as he darted on he again

tasted fresh blood. Skimming the crest of a wave, he came upon another slaughter ground. Here Ocra had been and passed on. This had been a small herd of sea lions. As Matka doubled sharply away, a torpedo shape hurled at him through the water. The scavengers had not all departed! Dogfish, the jackals or coyotes of the sea, were feasting on the leavings of the sea wolves. Swift as was the rush of the dogfish, the seal avoided it and was away on a swift race through the green depths, while the dogfish returned to the feast.



With the calm fatalistic philosophy of his kind, Matka soon forgot his fright, and swam joyfully on through the increasing pelagic life of the northern seas. The haste of his former mates seemed to quicken his blood, and he hurled through between two volcanic islands into the Behring Sea. Due northwest from Unimak Pass he set his sharp nose, and gathering speed with each added league, he seemed to become a living projectile. Food and danger alike were forgotten. He became a speed demon incarnate.

A fierce booming surf beat upon a low rocky island. Screaming gulls circled overhead. Below was tumult. Above the roar of the breakers came the greater roar of conflict. The sands were red with blood. Bleeding forms were trampled beneath the charging ranks of frenzied warriors.

From the boiling surf shot a glistening form. High above the waves it arched, and seemed to dive at a pair of struggling fighters on the beach. It crashed upon them with the weight of a quarter of a ton, bowling them over like ten pins. Matka had arrived! He reared himself quickly on his strong fore flippers, seemingly little the worse for his violent contact with the combatants and with the rock strewn beach. As his senses grasped the terrible struggle all about him, his yellow mane rose on the back of his neck like that of a lion, and he roared forth his hoarse challenge. A quick survey told him that the conflict was one for possession, a battle between the invaders — the late arrivals — and those who had already preëmpted the beach. It was a case of squatter sovereignty, where possession was not nine-tenths, but ten-tenths of the law!

Among all that roaring, fighting mob, Matka was the only one that bore no scars, save his bullet wound. Every wrinkled neck was scored with the marks of former conflicts, and every neck was red with the scars of the present conflict. Matka seemed a splendid, perfect thing apart from that gory herd. But not for long.

Matka's fortunate landing had cleared for him a space upon the beach. With one blow, he had become a "beach master." But could he hold his strip of beach? One of the victims of his onslaught lay in an inert heap, with a broken neck. But the other, a battle-scarred veteran of five seasons as a beach master, was not so easily routed. He came hitching forward swinging his long neck from side to side like a

boxer sparring for an opening. His lips were drawn back in a fiendish snarl, revealing his terrible daggerlike yellow tusks. As he arrived within striking distance he feinted swiftly to the left. Matka darted his head over to meet him, only to feel the sharp tusks rip his right shoulder. Again came the lunge. This time Matka began to remember. This was somewhat like the game his trainer played with him, when he tied big balls on his flippers and slapped at Matka. True, Matka had not been a very apt pupil, but how was he to know that?

Matka was marked again with a foot-long gash before he could think the matter through, but when the next feint came, Matka was ready. His fore flipper shot out like a boxer's fist, taking the surprised beach master across his nose with a sound slap. Almost with the same movement, Matka slashed with his tusks at the red throat. Other recent battles had opened furrows in the great neck. Matka's thrust entered deep, and pierced the throat. Matka had won his first beach fight.

But what is one fight among thousands? All the wearisome day Matka fought on as other males tried to usurp his strip of beach. Not again was Matka so fortunate in attack. Some of the battles lasted for hours. Only his slightly greater bulk and vigor won for him.

Then came Eve—lithe, graceful, petite—dressed in a lighter brown coat of lovely soft thick fur! Not over a fifth the weight of the beach masters were the cows who now began to arrive in droves. The beach became a bedlam. Two hasty swains literally tore an arrival to pieces as each tried to drag her into his harem. If the beach masters fought with malice before, now they went almost insane with berserk fury. Gradually, however, as all the seals arrived, the quarrels settled down to inter-harem feuds and bickerings.

One sleety morning, as Matka proudly surveyed his domain, the farther edge of the herd became strangely agitated. Startled barks came from the half-grown bachelors herded there, interspersed with the angry roars of the beach masters. Matka could make out strange moving forms and shouting. The bachelors retreated toward the higher ground. Along the beach came uncouth men, striking right and left with heavy clubs. From the sea near Matka appeared a ship's long boat, full of more shouting sealers. The crack of rifles added to the din. The plan of the poachers was to drive the herd into the interior of the island, exhausting the seals by the long overland journey, and there round them up and kill them with clubs. The herd about Matka began to move away from the beach.

Into the beach master's mind flashed the memory of the men in the motor boat and the deep biting wound in his shoulder. Matka swayed his great head in indecision as the boat landed a few rods down the beach. A month old pup at his feet bleated in terror. Matka swung his head around. Almost the entire herd had retreated. Bullets began to whine about Matka. Suddenly he stooped and grabbed the pup by the scruff of its neck. As he did so a bullet spurted sand into his eyes, blinding him. Another bullet cut a furrow along his sleek back. Blindly he lunged away—toward the sea! Perhaps it was the memory of his former escape into the sea that decided his course, but almost alone Matka plunged toward the surf, the pup still held in his jaws. A bullet drilled through his neck, another smashed through a flipper, sending him rolling as his support was knocked from under him. But he was in the edge of the surf. Just as another bullet whistled by, a roller floated him clear. Instinctively he dived.

His mangled fore flipper was a terrible handicap, for he swam almost entirely with

his oarlike fore flippers, using the rear pair as rudders. However, by abnormal effort, he managed to clear the surf. The pup was half drowned by the time Matka came to the surface, for he had not yet learned to swim or dive. Matka dropped the little fellow into the water, where the pup tried frantically to keep his head above water. Though Matka was weakened by his wounds, his eyes were washed clear of the sand, and he was able to take note of the struggling pup. He picked it up again and started swimming erratically out to sea. Dimly he sensed a black bulk on the water and avoided it. As he did so, another small boat left its side for the beach. More poachers were going ashore.

Somewhere beyond him, miles out at sea, were the feeding grounds, and the pup's mother. Matza zigzagged along on the surface, occasionally dropping the pup to rest his pain-racked body, and incidentally giving it a swimming lesson. He had lost much blood and his maimed flipper gave him continual trouble. However, he kept doggedly at his task. The pup, under stress of urgent necessity, began to find the use of his flippers. Gradually he was able to keep up with the bull's slow progress. Slower and slower swam Matka. He was tiring fast.

A long, lean gray shape cut through the waves. Its shadow hovered above the seal. However, he was too weak to heed it. His one thought was to reach the feeding grounds.

"Lieutenant, quick! Do you see what I see? That's a wounded bull seal—and a pup! Why should a beach master be on the feeding grounds—and with a *pup?* I want to examine that seal. Cutter away!"

As the ship's cutter bore silently down upon Matka, he lifted his sagging head. No hoarse shouts or sharp rifle fire startled him. The blue uniforms and caps reminded him of his former keepers. So he waited, weary, yet alert for any hostile action, the pup swimming close to him in fear.

"Coxswain, I wonder if we cannot get closer. He doesn't seem to be afraid of us. Quietly now."

The boat came to rest within a few feet of Matka. He wrinkled his bewhiskered nose. The smell seemed to be familiar, friendly. He deliberately moved closer to the boat.

"Softly, men. Those look like bullet creases. We want that seal."

As Matka came within reach the officer struck him a stunning blow with the handle of the boathook. The pup bleated in terror.

Matka regained consciousness as the boat crane was swinging him to the ship's deck. He did not offer any resistance as the sailors unfastened the sling from his bulky body, and he merely looked on like a suffering dog while the ship's medical officer examined his torn flipper.

"High power bullets, sir. And here is a Biological Survey marker—P. 1257-18."

"Fifty-seven, eighteen? Why, man, that is one of the group we sent out from the Pribilofs six years ago for exhibition purposes! How did that seal get back here? No wonder he is tame—I'll warrant he can do tricks. But something is wrong at the rookeries. Let's get under way!"

Matka twitched his whiskers in pleasure as a sailor brought the pup from the galley where the cook had been trying to feed it condensed milk. It crawled close to him for protection as the Coast Guard cutter went driving eastward with the rain squalls.

A smudge of smoke ahead—the black sealer! A white plume of steam jetted upward as the sealer's whistle warned the men on shore. Sailors on the cutter removed the cover from the bow gun. The black ship began to move away without waiting for the men on the beach. The

captain on the cutter's bridge above Matka raised his hand. Matka cowered at the report of the gun. A white column of water appeared in front of the sealer. Another shot and the sealer came about. Thanks to the thick weather and to Matka, the Coast Guard cutter was too close for the sealer to use her greater speed to escape. The herd was saved!

And Matka? Why, when the short summer was over, Matka went south with the herd for the winter.

The Scout Spirit

By Walter Camp

THE Scout Spirit was in existence long before the organization of Boy Scouts was ever developed or even the original scout of our frontier and borderland was born. It has existed ever since the dawn of ages and has come down through successive generations of hardy men of initiative and adventure. However far back we go we find ever a leader who is blazing the trail for his less adventurous comrades to follow. And if we examined into the history of such men we should find that spirit actuated them even as boys and young men in the things which at that age bulked large to them. We should find them the youths who devised new sports or a better way to play the old familiar ones; we should find them the ones who were never quite content with doing a thing in a certain way just because it had always been done that way. We should find them always looking for some better way. And so we see them developing and carrying that adventurous, high, resolute and undiscouraged spirit and ever becoming in any walk of life the Roadmakers for those who without them would never make any appreciable advance.

Think what Roadmakers Wilbur Wright and his brother were to the sport and science of Aviation. In 1902 at Kitty Hawk they flew in a glider 622 feet. That was the first step on the trail. In 1903, they fitted in a motor and stayed in the air 59 seconds, but it took them two years to get a suitable motor, and they then flew 24 miles in 38 minutes. In 1908, Wilbur Wright went to France and on the 16th of September he flew there for 39 minutes and 18 seconds, and in 1909 on the 5th of July, Bleriot flew across the British Channel. And now the air has become almost a highway of travel!

It is an extraordinary thing in looking over records of our great men and leaders to find how many of them began on the farm or in the country, with all the benefits which the outdoor life gives.

Marshall Field was a farm boy and later a clerk in a dry goods store. James J. Hill was a country boy and clerk in a store. Thomas A. Edison began as farmer boy and then a newsboy on the train and later a telegraph operator. James A. Garfield was a mule-driver on the towpath. Philip H. Sheridan worked in a country store. Charles M. Schwab began as a clerk in a grocery store. Cornelius Vanderbilt began as a farm boy. Albert J. Beveridge was a plow boy, railroad laborer, logger and teamster. Robert Dollar was a cook's boy in a lumber camp.

No wonder that one becomes impressed by studying the history of these leaders, with the fact that the old Scout Spirit develops leaders and that the beginning in youth outdoors prepares as does nothing else for a strenuous later life.

The Stellar Sea Lion

By C. L. [Grizzly] Smith

THE Stellar Sea Lion which inhabits the waters of the Pacific along the western coast of America is one of our largest and perhaps one of the most interesting of the seal family. While it is fond of basking in the sun on the numerous rocks along the Pacific coast or on small islands, it is often seen far out at sea and it is able to spend days at a time in the water.

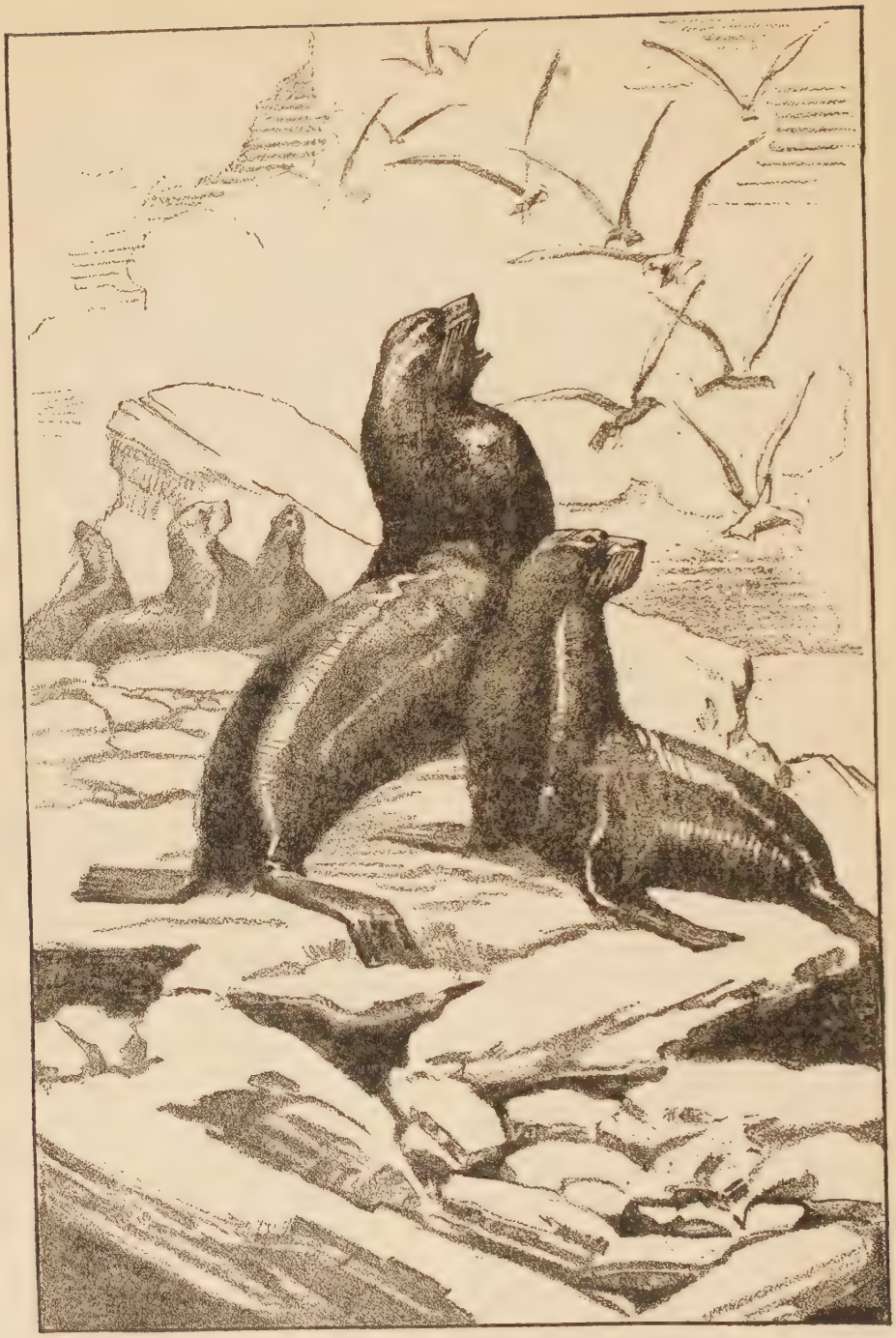
While the seals may be found on the rocks at almost any season of the year, during the latter part of May they collect in favorable places where the rocks are not too abrupt and where the tide will not overflow. Each adult male seeks a certain part of the rock or island, sometimes a considerable distance from the water. This is his especial territory and all other males are forbidden to trespass on pain of a fierce battle.

After the male has located his empire one to three females take up their residence within his domain, and there the young are brought forth in June. They weigh from twenty-five to thirty pounds when born and become quite vigorous in a few hours.

The males go every third day for a few hours' swim in the ocean, presumably for food, and for one whose territory lies a considerable distance from the water's edge, this is a task, for he must fight his way in the fiercest kind of manner every foot of the way between his domain and the edge of the water for the ground over which he must pass has been preëmpted by some old bull jealous of his territory and lacking nothing in courage who will put up a fight. Battles royal are fought throughout the month of June by these old monarchs of the deep while at all other times during the year they are peaceable and crawl over each other like so many huge worms.

The females also go to water every third day, but they take no heed of male or female that may be in their path, but go flapping along over everybody, large and small, and every one appears to take it good-naturedly, making no protest. Upon returning from the water they at once set up a bawling like a cow for her calf and at once all the young ones whose mothers are not with them begin to bawl at the top of their voices and this they keep up until the mother reaches her own young.

They seem to be guided by smell in finding their way back to their own young among all the hundreds that lie scattered about over the rocks. If they stop to get their bearings near a young one it does not seem to be able to discriminate between its own mother and any other cow seal so it crawls up to her side. When it is felt by the cow seal she puts her head around and sniffs it, if she discovers it does not belong to her she grabs it by the back of the neck and with a mighty flirt of her head hurls it spinning through the air twenty or thirty feet in such a violent manner that it is often killed by its fall on the rocks. In this way probably sixty per cent of the seals born lose their lives before they are



The Stellar Sea Lion is one of our largest and most interesting seals

old enough to know their own mothers.

The writer hunted sea lions on the coast of Oregon two years: one year off the reefs at the mouth of the Coquille River in Coos County, and one year off the mouth of the Rogue River in Curry County. Rogue River Reef lies six miles west by north of the mouth of the river and consists of a number of rocks projecting above the surface of the water.

The one in particular that is the most frequently used by the sea lions contains probably one acre or more and is some fifteen or twenty feet above the highwater mark. On the southwest corner of this reef there is a high point standing sixty or seventy feet above the surrounding reef and near the top of this is a little flat bench or shelf, where the top of the rock seemed to have split in past ages and one-half of it had fallen away, leaving a level floor about six and one-half by nine feet. The general surface of the remaining part of the reef is level, but not smooth for there are many pools, crevices, and holes.

We left the little town of Ellensburg, just inside the bar at the mouth of the Rogue River, and on the fourth day of June, pulled out of the mouth of the river with three open boats. One was a Kiel boat capable of carrying four or five tons, a flat-bottomed skiff, the other a small Kiel row boat which had been used in former years in hunting sea otter off the coast of Japan and along the Kamskatka coast.

The day was beautiful, without a breath of wind and aside from the gentle swell of the Pacific, the water was as smooth as a pane of glass. We pulled over the bar about half past twelve and by three o'clock we were lying off the seal rocks six miles off shore.

We tried to make a landing in order to get our food supplies and equipment for trying out the oil on the rocks before night, but the sea lions resisted our every effort to land. We fired guns and yelled ourselves hoarse and even tried to use clubs to get them off the rocks, but all to no purpose. Night finally came and darkness drew down and with it an overcast sky which did not look promising. There were three in the party, the writer being the most inexperienced. One was an old sea captain by the name of Harry Strand, who had been engaged in coastwise trade along the Pacific for a number of years. The other was T. J. Edson, a man of considerable experience in sea otter hunting and black sand mining along the coast.

Shortly after dark the sky became overcast with clouds and the wind began to freshen from the southeast. We pulled around on the northwest side of the reef and dropped a fifty-pound anchor from out the four-ton boat and then ran out lines in two directions and tied these fast to the kelp and seaweed, for there were vast beds of this marine plant growing to the north of the seal rocks. Kelp grows from the rocky bottom of the ocean in water from fifty to one hundred and twenty-five feet deep. It is so firmly rooted upon the rocks that it makes excellent anchorage for small boats. The indications were favorable for a good stiff blow during the night so we used every precaution possible to make our boats secure against the storm.

By half past ten at night the wind had risen to a piping gale and the sea began to break over the lower ledges where the sea lions lay, which seemed to make the animals noisy and nervous. I will never forget the ear-splitting bellows and cries of these thousands of animals throughout the night. The ever increasing wind soon lashed the water into crested waves and our little four-ton boat seemed to stand first on one end and then on the other. The two smaller boats were soon swamped and lay

waterlogged where the waves passed over them. By having one man busy bailing constantly we were able to keep most of the water out of the larger boat.

Captain Strand stood throughout the night holding the little bark head on to the wind, while Edson and I spelled each other every few minutes in bailing water out of the boat as it came in over the sides. I was an indifferent sailor and soon became seasick, but this was one of the times when I could not give way to my feelings. Towards morning the wind began to die down again and as the wind slackened the sea flattened out and became comparatively smooth in the kelp beds and weed patches where the waves seldom break except in the stormiest of weather.

A few feet of the forward end of our boat was decked over and as the gray dawn began to show in the east I crawled under this decking and lay down in three or four inches of water, feeling too sick and miserable to care whether the boat sank or floated. Captain Strand, however, was a seasoned old sea dog and as soon as it was light he hauled me out and we began our preparations for landing on the reef. We fired guns and yelled again and it seemed the storm had driven the sea lions into the water or perchance they had gone off in the night to feed; however, we were able in an hour or so to drive the animals off so we could land our water, fuel, food, empty barrels and large iron kettles. We also had in cargo a few feet of inch pine boards, which we stacked upon the reef.

After everything was landed we took our largest boat out in the kelp beds and anchored it securely. Then we hauled our smaller boats out on the reef and turned them bottom side up so the lions could not get inside them. We then rolled our water kegs up on the higher part of the reef, carried our lumber up to the highest point of the rock formerly spoken of and there built a little lean-to shanty. By the time these duties were all attended to it was growing late, so we knocked off for the day.

There we could sit, securely perched on our little ledge fifty or sixty feet above the surrounding rocks, which were again densely populated with sea lions and their families. This I think was one of the most thrilling sights I ever witnessed, sitting there in the twilight with the mountains dimly outlined in the east, the little harbor with its twinkling lights six miles away. To the west of us a large rock standing sixty or seventy feet above the water where cormorants, mures, and sea gulls and a few other water fowls had an immense colony and were busy making preparations for the summer housekeeping.

Far in the west, low down on the horizon, could be seen a long low-lying cloud of smoke trailing away to the southeast and the bright lights of a steamship could be seen twinkling just above the tops of the waves. Down on the rocks below our eyrie were thousands of lions and it seemed each one vied with the other to see who could make the most noise by bellowing, growling, snorting, and fighting. The surface of the water all about the reef was thickly studded with lion heads sticking up out of the water. They seemed anxious to land and yet afraid.

As the season advanced the adult lions became wilder and would take alarm at the least provocation and desert the rock, leaving their young ones behind them. It was my pleasure when not otherwise engaged to go out quietly on the rocks and sit down in the sun. In a few moments there would be half a dozen or more baby sea lions, weighing from twenty to fifty pounds apiece, crawling all over me as fearlessly and playfully as pet kittens or poodle dogs. They seemed to have no fear of me as long as I did not try to han-

dle them, but I got severely bitten by trying to pick one up. The little fellow became frightened and thought I was going to do him some bodily harm and nailed me by the arm; however, with the small baby teeth and the lack of power in the jaws I escaped with a mere scratch to what it would have been had the animal been a little older.

One morning just as the sun rose over the mountains along the coast we sighted a sea otter in the kelp beds a quarter of a mile north of the reef. These animals are very rare in that part of the country, not being seen more than two or three times in a year, and they are very wild and hard to approach. Their skins are very valuable and men walk the beach between the mouth of the Rogue River and Ucher Creek to the north in the worst storms of winter, when the sea otter are known to feed along the shore, in order to get a shot and out of the few that are sighted probably not more than one or two a year are killed. These animals have a very dense, soft, silky fur which enables them to live constantly in the water.

When they go to sleep they curl up like a pussy cat on a rug and bob around on the surface of the water like a piece of cork.

As soon as we sighted the otter we decided we would make a try for it, so we launched one of the small boats and rowed out west a mile or more, then bore around to the north and I was put ashore on the top of a small rock sticking above the water where there was a clear channel through the seaweed running out to sea. I landed on this rock with my rifle and Edson and the Captain pulled away and left me. The tide was low so there was no immediate danger of the water breaking over the rock and washing me off, but instead of the otter coming west it went off to the south and Edson and Strand followed, promising they would come back and take me off before the tide rose and washed me into the sea, but they became so deeply interested in the chase and so anxious to get the otter that they apparently forgot all about me and the tide turned and soon placed me in a precarious position.

I yelled and waved my arms and even fired my gun, but all to no purpose. There was considerable wind and the waves made a mighty roaring about the rocks so that my voice was drowned among the many bawlings of the sea lions and the general roar of the water. The tide rose higher and higher and finally began to break over the rock. There was a small crevice in the top of the rock and into this I jammed the breech of my gun in order to keep it from being thrown overboard, and also to give me something to hold on to. As the tide rose the waves became higher and rougher and I lost my hold on the gun and many times was thrown into the sea but each time I swam back, only to be thrown into the water again and again. Finally Edson and Strand gave up the chase, became aware of the dangerous position I was in and came to my assistance. I was pretty well exhausted by the time they reached me and could not have held out but a few minutes longer.

We brought the sea-lion hunting to a close on the first of July. I did not keep track of the number of sea lions we killed during the season, but the returns from our skins and oil amounted to twenty-one hundred dollars, which was divided equally between us.

The sea lion has a bad reputation around the mouths of rivers where salmon canneries are located. They are accused of destroying great quantities of salmon, but of all the hundreds of sea lions I have killed, of which I have opened the stomachs of many, I have never found salmon in any. Although they may and no doubt do kill some salmon, their principal food

is squid or octopus and the codfish found on the banks a few miles off shore along the Pacific coast. I judge from the number I have examined that at least seven-tenths of their food is squid.

There is a strange and very peculiar thing about the sea lion, especially the larger ones, and I believe this is not generally known, and that is that they swallow smooth river boulders or rocks almost as large as a man's fist and that you will find from two to four or five of these rocks in the stomach of almost every adult lion. Just why they do this is not certain but I am of the opinion that the rocks are used to grind up the fish bones in the stomach and in this way aid digestion. And I also believe that if keepers in zoos, who have these lions for exhibition, would keep some small hard rocks of the proper size in their pools, the specimens would live longer and grow to a larger size.

The Strangest American Animal

THE strangest American animal and one of the rarest and least-known of all mammals is the solenodon or "almiqui," of which only two species are known—one peculiar to Cuba, and the other to the Island of Santo Domingo.

Although the solenodon is an insectivorous animal, yet in many ways it resembles the rodents as well as the ant-eaters, and is really more like certain fossil quadrupeds than like any other living creature. It is about two feet in length, with long, coarse hair and a naked, rat-like tail. The forefeet are heavy and strong, and are provided with stout curved claws, for digging and tearing apart rotten logs. The nose is long and slender and exceedingly mobile, and the whole appearance of the animal is most peculiar. For many years the solenodon has been considered extinct, and practically nothing was known of its habits and few museums of the world possessed even fragments of the remarkable animal. Some time ago an American naturalist undertook a trip to Santo Domingo in search of this long-lost animal, and succeeded in obtaining three living specimens, which are now in the American Museum of Natural History in New York, and are believed to be the only specimens of the Santo Domingo solenodon in the United States, if not in the world.

The River Rats Take to the Water

By Dan Beard

Illustrated by the Author

CLOSE by the sawmill on the edge of the washout at the top of the river bank where the Kingfisher had its nest, stood the sentinel. His slender form silhouetted against the summer sky showed no movement except where the warm zephyrs moved his hair. A coarse, wide-brimmed straw hat protected his head. The rest of his clothes consisted of a shirt and a pair of trousers, but no soldier on picket duty ever gave more attention to his duty or took his position more seriously than did this sentinel. The happiness of all his gang depended upon his watchfulness, for be it known that the law said that there could be no bathing in the Licking River without bathing suits!

Bathing suits? Why there was not a boy in any one of the group of three cities who had ever seen a bathing suit. I doubt if there was one owned by any persons, young or old, inside the corporation lines of those cities—but, that is the way of men, they tell the boys they must do thus and so, and if they do not do it the policeman will catch them. Men always were funny things.

Fortunately for the boys there was only one policeman in their town and his name was Clint Butts, but, in spite of his name, or maybe because of it, he was held in great respect by the boys, for although he had only one arm, the hand hitched on to that arm was like a grappling hook. The arm itself seemed to be elastic and seemed to stretch, so the boys averred, at least three yards.

When the Licking River would fall after the spring freshets or after a summer cloudburst back in Kentucky, it would leave exposed more or less steep banks and flats coated with about two feet of fine silt, that is, mud of about the texture of soft soap.

Below the sawmill, sprawled on the river bank, were several acres of saw logs in the form of numerous rafts, which joined and extended down to the water's edge, beyond and almost half way across the stream. There could not be a more attractive place to a boy from which to swim than was made by the combination of this raft and the water of the river. The inch-and-a-half thick planks of white pine, which had served as blades to the giant sweep oars, with looms of young forest trees made splendid springing boards.

Monkey Shoals and Sandy Bar were disporting themselves in the water with all the abandon and glee of young ducks when suddenly above the sound of the song of the big circular saw and the puffing of the steam of the sawmill, a shrill whistle pierced the air. It caught the attention of the urchins in the water who immediately scrambled out and looked anxiously to their sentinel on the bank, the latter made a motion with his right hand as if he was sawing off his left arm, then he made as if

he was grabbing something out of the sky and pinned it on his left breast, and the boys knew that Clint Butts had been sighted.

Did they run away? On the contrary, they ran right toward the approaching danger, ignoring their clothes which were neatly concealed under a plank on the raft. They ran to the shore edge of the raft and stooping over each gathered two handfuls of the soft mud. This they began to plaster over their glistening bodies and legs; when, lo and behold! where two naked urchins had stood but a moment before there now stalked two demure, law-fearing boys clad in neatly fitting bathing suits. The bathing-suit boys walked up and down on the rafts in a most ostentatious manner, talking together of the weather and the crops and various other topics in which they were not at all interested. Just then Clint Butts hove in sight, stood on the bank for a few moments, gazing curiously and intently at the boys, the while pulling his big mustache.

The sentinel years afterwards declared he remembered noticing more or less of a twinkle in the policeman's eye, but that may have been imagination for no one without powerful opera glasses could tell that the sun-burned bodies of the boys were not clothed in real bathing suits. Butts turned on his heels, took a chew of tobacco and walked away; then the sentinel threw both hands above his head and brought them down to his side, repeating the motion three times; at which the urchins on the raft dove overboard, and when they again appeared they were as naked as when they were born, and not a vestige of the beautifully fitting bathing suits appeared on their forms.

When Lerdum came down and joined his two hard-boiled friends on the raft they proposed to him that they should all three swim down the middle of the river to the coal barge wharf boat at the foot of Third Street, while the sentinel, Daddy Kyle, transported their clothes in a Yankee-pine with which he was to row ahead of

the boys. By this means, should Clint Butts again take it into his head to visit the river bank they could swim across to the other side to dress; that being another town, was out of Clint's jurisdiction.

"Say, Lerdum, have you heard about the sea serpent that's in the Licking River?"

"No, nor nobody else has," replied Lerdum.

"You haven't?" said Sandy Bar. "Now we're just going down where they say the sea serpent lives; if you have nerve enough you may follow us."

"Oh, fudge, I'll follow wherever you two dare go," boasted Lerdum.

Sandy had hardly passed the shadow of the suspension bridge when he gave a yell of real terror and beat it for the shore; when Monkey reached the same spot he also gave a yell and beat it in for shore. Lerdum was laughing so at their antics that he could hardly keep his head above water. He knew the boys were just trying to frighten him, but suddenly under his chin he felt a cold, slimy something which wiggled all the way down his body to his toes. In spite of the fact that his heart was in his mouth and his hair standing on end, he gave a yell which would have gladdened the heart of a Comanche Indian and as he splashed away to shore every time his mouth came above the water he yelled another yell. When he climbed panting on the muddy bank alongside the other boys he exclaimed:

"Jimminy Crickets, I thought you all was fooling, but if that wasn't a sea serpent it must have been an eel as big as my leg and as long as a clothesline."

Just then Red Brosmore and a gang of river rats hove in sight, whereupon Monkey Shoals rose to the occasion and in a most excited manner shouted:

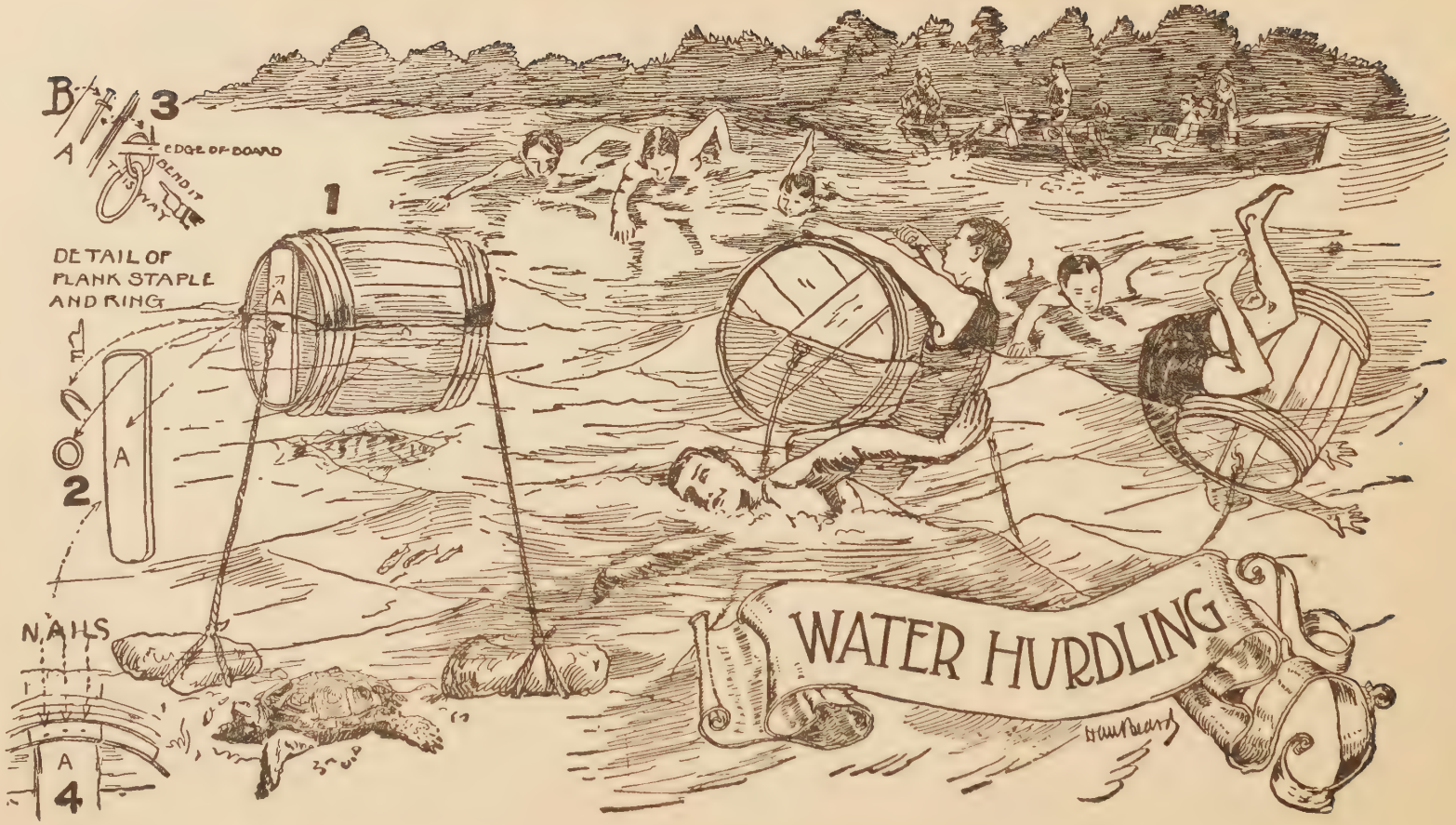
"You fellows think you're so awful brave, we dare you to go in swimming above the suspension bridge and swim right down the middle of the river, opposite where we're standing."

Now, of course, Red would have taken the opportunity offered of beating these boys up, but neither he nor Softy Elliot, nor Billy Goosegrease, nor Squinty Quinn, nor any of the gang were cowards nor would they take a dare, even from the small boys, so up they went, threw off what few clothes they had, dove in and came swimming down the current with wicked grins upon their faces, Red in the van. When they reached the spot occupied by the sea serpent, the expression on Red's face suddenly changed, the grin slid off his countenance into the water and sank with a b-l-u-a-b! His eyes grew big and round; he gave a quick wild look at the shore followed by a nightmare yell, then with long sweeping strokes, but with his feet kicking the water into foams, he swam rapidly to the shore. All his gang laughed with glee at the splendid piece of acting but each one when he reached that particular spot also gave a war whoop and swam for the shore. It was a great game, so those in the rear thought, but they all acted their part astonishingly well when they reached the sea serpent spot in the river.

Monkey Shoals and Sandy Bar and Lerdum took advantage of the excitement to steal down to the coal wharf, jumped into their clothes and skedaddled up the bank, but Red and the river rats had forgotten them and sat on the edge of the water a long time discussing their adventure.

The Bucking Barrel

Lerdum, Sandy, and Monkey invented many games and stunts that you scouts are doing to-day. It was the game of racing in the water over hurdles of saw logs that suggested the barrel hurdles, shown in Fig. 1. Secure some iron rings, staples, and


B
3
A
EDGE OF BOARD
1
DETAIL OF
PLANK STAPLE
AND RING
A
2
A
NAILS
A
4
WATER HURDLING

water-tight barrels. Cut some boards, A, to fit on the heads of the barrels, Figs. 1, 2, and 4; at the middle of the board fasten the iron ring with a staple, driving the staple through the board, Fig. 3. Clamp the staple by placing a big nail along the board, B, Fig. 3, and bending this staple over it until the points may be driven into the board. Fitting the board snugly across the barrel, nail by driving nails through the rim, as in Fig. 4. The barrel may now be anchored with lines attached to the rings, Fig. 1.

The bucking barrel, Fig. 5, is made in somewhat a similar manner, but it is not anchored.

It is, however, necessary to have some ballast, Fig. 6, which is a cloth or bag containing pebbles of sufficient weight to balance the barrel, so that the horse's head may be held above the water. This can be attached with a line to the bottom side of the barrel, Fig. 7, secured by ropes around the barrel. While the ballast will hold the horse upright, the rider must do the balancing when he mounts, Fig. 5. In doing so, he will furnish plenty of entertainment for the crowd.

The Elephant and the Lamp

A CURIOUS experience fell to the lot of three men who were on a tiger-hunting expedition in India. To prevent the invasion of mosquitoes and other insects that would be attracted by the light in their quarters, the heavy cotton curtain that formed the door of the tent was closed, and the three friends were chatting across the table when suddenly the whole tent shook. As they looked around to see the cause, the heavy curtain was roughly snatched away and in the open doorway appeared the head of a big elephant.

The men had no time to catch up their rifles. They knew by the appearance of the animal that he meant mischief. Lifting up the roof of the tent with his head he threateningly swung his trunk out at the man nearest to him. At this, the hunter sprang to his feet; seizing the lighted lamp from the table, he hurled it with all his strength at the animal's forehead.

The glass shattered at the blow and the blazing oil covered the elephant's trunk with a sheet of flame. With a cry of terror, the beast drew frantically back, shook off the curtain, and fled across the country—vanquished by a single blow from an oil-lamp. It was a fortunate act, for the animal was no doubt "a rogue," and would probably have killed one or more of the men.

Pirate Island

By Irving Crump

Illustrated by Thomas Skinner

THE wind-muffled roar of a cannon echoed across the blue tropical ocean and frightened a flock of tiny gem-like parrakeets into flight. The small boat crew, filling the last of three hickory casks with water, stopped in the midst of their work and stared at one another. Another roar and still another and another; a scattering broadside, that rumbled like the tumbling of rocks down a mountainside.

Three men dropped their pannikins and started through the jungle growth toward the beach. But Vom Worter, the big, bewhiskered bo'sun's mate, seized two of them by their collars and held them back while he growled a command to the third to halt. They looked at him in surprise.

An instant later there was a crashing in the undergrowth and Peter Ryp, the ship's boy, wide-eyed with amazement, burst among them.

"Spanish pirates," he exclaimed pantingly. "A big galleon, came out from behind this island. Forty guns I'd say. She pounced upon the *Adventurer* like a sea eagle. Captain Kronk has cut the cables and is running for it. But he stands small chance against that mountain of canvas."

The bo'sun's mate nodded.

"Were you on the beach? Did they see you from the galleon?"

"No, I was in a cocoanut palm cutting green fruit."

"Good. It will do no harm for us to watch the chase if we do not show ourselves. Be cautious, else those Spanish fiends will come back for us if they discover we are on the island. Come."

Vom Worter led the way through the jungle toward the beach, but at the edge of the undergrowth he crouched low to peer out at a sight that brought a growl of anger from him. Peter, beside him, heard him mutter.

"A thousand pests. It's *El Toro* and that son of Satan, Crespo."

Crespo! It was a name that put fear in the heart of every honest seaman. Most vicious of all the horde of Spanish sea robbers, he was noted throughout Holland and England as a freebooter who stopped at nothing. His clutch meant death, or worse; bodily mutilation that left men to go through life with eyes burned from their sockets or hands mere useless stumps bereft of thumbs and fingers. Even the Spanish and Portuguese feared him, for Crespo was not above falling upon their ships were the booty known to be worth the effort. England had offered a reward of five thousand pounds to any of her commanders who should bring his piracy to an end and Holland had made a similar offer. The valiant Heemskirck with a squadron of privateers had tried to run him down but Crespo had made sport of him; played hide and seek with him among the islands, cut two of his vessels out of the fleet and sunk them and sent the Dutch Admiral home to Amsterdam a sadder

but wiser man after his experience.

The galleon was Crespo's notorious *El Toro*. Even Peter recognized it from the description he had often heard of it. There was no mistaking the bizarre decorations of the towering poop, with its fretwork and carvings splashed in gold and vermilion as suited the Spaniard's tsate for brilliant color. But to make its identity certain, even as Peter and Vom Worter and the rest of the small boat crew watched from their hiding place, the galleon ran up its colors; Crespo's colors, a black flag with the skull and crossbones surmounted by a blood-red disk.

A cheer, an ugly yell like the pack call of wolves came faintly up the wind as the flag burst forth and once again came the rumble of a cannon as jets of flames and smoke leaped from the starboard side of the pirate ship. Peter could see the skip of round shot as they cut the crest of the waves off the port quarter of the smaller *Adventurer*.

Captain Kronk was making a run for it; a valiant effort to escape the clutches of this hawk of the seas. Peter could see men aloft crowding on all sail until the little ship leaned gracefully in the winds and fairly leaped through the water. She was a merchantman to be sure, but a merchantman built to take care of herself in an ocean infested with Spanish galleons and pirate ships.

With her flying start *El Toro* had swept down within a mile of the smaller *Adventurer* before Captain Kronk could cut his cable and gain headway. But with every new sail the Dutchman broke to the wind the little ship added to her speed until it began to look as if she had a fair chance of escape. To Peter and Vom Worter and the rest of the men it was like watching a tremendously exciting race; a race so gripping that they must needs hold their breath and clench their fists while they bit their lips during their suspense. Could the *Adventurer* make it? Could she get away? Could she hold her own and perhaps gain a little until nightfall, now but a few hours off, when she could elude her pursuer in the darkness? It began to look as if it were possible. Then——

Groans and curses leaped to the lips of the watching men. Peter stared, then passed his hands before his eyes and stared again.

The galleon had fired another broadside and even before the muffled thunder came to them they saw the *Adventurer* lurch and at the same moment the mainmast swayed drunkenly. It started to fall, was held suspended for a moment by the tangled cordage, then collapsed smothering the deck with flapping canvas.

"That's the end," rumbled Vom Worter. "They'll board her now and slit every throat on the ship. 'Tis lucky that we had those three last casks to fill else we'd be in the thick of it. See them! They're closing now. Look! There goes the grapnels! And the boarders! Hi-yi, look at the bloody scum!"

Faintly to their ears came the rattle of muskets and pistol shots and terrible yells of a hand-to-hand fight on the merchantman's decks. Then suddenly all was still and the two ships lay out there in the blue-green rolling waters locked together, the galleon with her stripped sails looking for all the world like a tiger that had made its kill and rested with its paw upon its victim while it glared about defiantly.

"Come on," said Vom Worter; "out o' this. Crespo must not know that some of the crew is on the island or he'll land and hunt us down, the bloody hound. We can do no good waiting and watching her and I think it's best we hide our boat and casks till we know what is next to be done."

The need of fresh water and the possi-

bility of fresh fruit and cocoanuts had been the lure that had made Captain Kronk send three boats from the *Adventurer* ashore on this uncharted tropical island. Two of them had filled their casks and returned to the ship, but the third under Vom Worter had remained overlong while Peter and several others were gathering cocoanuts.

Fortunately they had run their boat well up into the reedy marsh that marked the entrance of the river flowing down from the hills into the ocean. The boat had been well concealed from the first and they had little difficulty dragging it out of the water and well into the jungle.

This done Vom Worter gathered the crew about him and took account of their situation. Speaking as if through clenched teeth in a fashion that had always puzzled and interested Peter he addressed them.

"It's a desperate plight we find ourselves in, men, but not half so desperate as the plight of our friends and messmates. Crespo may not know we are on the island and then again he may. Prudence advises that we go back in yonder hills and hide until that fiend's ship is below the horizon. Seven of us with what arms we have need not lack for food or drink on an island such as this, and one day when Holland shall thrash these Spaniards and clear the seas of their plague of ships another merchantman may venture here and take us off. Unless it should come to pass, and I'd gladly perish on this island could it happen, that Hendrick Hudson finds the passage to China by the northwest for the British or our own gallant Barentz shall find a route for Holland by the northeast, so that honest merchantmen can reach China without having to run the gauntlet of these Spanish dogs. Come. We'll climb these hills and see what manner of island Providence has left us on."

To Peter Kyp, born and reared in the narrow streets of Amsterdam, wandering through the tropical jungle of a South Sea island was high adventure, the sort of adventure that had filled his mind since the day his wooden sabots had first clicked along the stone quay and wooden wharfs of the waterfront of Holland's biggest port when he had looked yearningly out to sea, out to the mysterious beyond that seemed always beckoning him. Peter had deemed it a stroke of good fortune when Captain Kronk had blundered into his father's copper smithy for a new snuff box, for it was as a result of that meeting that the florid-faced old sea captain had volunteered to take him as an apprentice in the *Adventurer*.

Peter had supreme faith in his good fortune. It seemed always with him, otherwise he would not have been detailed by the captain to join Vom Worter's boat and gather cocoanuts. He shuddered to think of what might even then have been his fate had it deserted him. At best he would be in irons, a prisoner of the Spaniards. But more likely, throat slit, he would be furnishing a meal for the leopard sharks instead of cutting his way through the tangle of undergrowth of the tropical forest.

Hacking a path with cutlasses and sheath knives through this untrodden wilderness of creeping growth was hard and tedious work, but Peter was so keenly interested in all that he saw about him, the myriads of brilliant-plumaged birds that flashed through the palms and tree-like ferns, the howling monkeys that scolded at them, and the butterflies that like animated jewels danced in each shaft of sunlight that penetrated to the dank floor of the forest, that he forgot how tired he was until they came out into a rocky windswept open space at the very crown of the highest of the ridges of hills that formed the backbone of the island.

The bo'sun, reaching the open hilltop before him, held up a hand in caution and Peter and the rest became silent, and moved toward a rock behind which Vom Worter crouched. As Peter crept to his side he pointed to another rock a little larger and not a great distance away and there Peter made out the charred remains of a fire, some pieces of discarded clothing and several grease-smeared cooking utensils.

"Lookout station," hissed Vom Worter. "The pirates, they——"

He stopped and held up his hand in warning. Peter became tense. So did the others. Some one was coming. Presently a tawny-skinned Spaniard with cutlass swinging at his sides stepped into the opening not twenty feet from where they crouched, and shading his eyes looked out to sea. Then muttering something under his breath he broke into a lilting sea chantey and walked toward the remnants of the signal fire.

Vom Worter had taken off his ponderous wooden shoes. In naked feet, as noiseless as a panther, he slipped from behind the rock and catlike made a sudden rush. The Spaniard, startled, turned to face him. This was the last place in the world in which he had expected to be attacked. Before his fingers could close upon the grip of one of the pistols in his belt Vom Worter launched a tremendous fist against his jaw and the pirate staggered backward, then collapsed in a heap in the embers of the dead fire.

The mate stood over him a moment and glared down. It was as if he debated there whether to kill him or not. Then suddenly he unclenched his fists and turning the man over untied the gay sash that he wore for a belt. Slipping the pistols into his own belt and passing the cutlass on to Peter, he tied the pirate's hands and feet and wadded a gag between his staggering jaws. Then dragging him into the shadow of a nearby rock he left him.

"This is bad," he rumbled. "We are on the pirate's island. This is Crespo's Isle of Terror for certain. What ill luck brought Captain Kronk blundering here? Look below."

He pointed toward the far side of the island westward. Peter could see a promontory extending out into the sea and behind it, curving until its contour was lost behind the tree tops, a sheltering bay, on the shores of which were three small boats drawn up in the sand.

"Down there somewhere is their stronghold. Fortune needs must favor us or we are lost; doomed to a more hideous fate than if we had stayed on board the *Adventurer,* for Crespo has short shrift and a horrible end for any one who comes to his island."

Peter could see his companions pale even under the ruddy sea tan of their weather-beaten faces. A cold fear clutched at his heart too. Here *was* adventure indeed, but adventure that was likely to have a grim ending. He began to wonder whether, after all, what he had thought was good fortune in throwing him in with Captain Kronk was only bitter Fate, slowly leading him on to a terrible death at the hands of Crespo. The mate detected the fear that gripped his small crew.

"Tut, tut. Buck up, hearties. So far so good, as the English say. We've accounted for their man on the hill here. Fortune let us reach the top just as they were changing watches. We are not detected yet, and seven Dutchmen are as good as a hundred Spanish pirates if given half a chance."

He glanced out to sea. The big galleon, a mountain of sail, was reaching toward the western point of the island. In her wake with tattered canvas and shat-

tered rigging was limping the *Adventurer*.

"'Twill take them the space of two sand glasses before they reach port and by that time darkness will be down. Hark you, men, most of the Spanish crew is on board the galleon. Yonder is the path to their stronghold. Let us see what we shall see and understand what manner of trouble we are facing. Come. Silently though."

Vom Worter, with drawn cutlass in his right hand and cocked pistol gripped in his left, started down the path by which the watch had ascended the hill. Peter followed him and presently the whole boat crew was slipping as silently as they could down the winding path that led to the foot of the hill and the great curving bay behind the promontory. It was a well-cleared and well-used path and their progress, though cautious, was swift. Soon the trees began to thin out, and presently Vom Worter held up his cutlass and motioned a warning. He led the way off into the undergrowth then, and working toward the beach gained a position on the edge of the tangle from which they could see a strange group of palm-thatched buildings, some of them of huge proportions.

Evidently most of the pirate crew were on board the galleon, for there were few Spaniards to be seen on the beach. One dressed in corslet and glittering headpiece with a long lashed whip in hand was driving some black slaves to the task of trundling casks and bales of loot into one of the palm-thatched storehouses. Several others in leather jerkins with gay sashes and breeches, lounged on the beach, their armor thrown carelessly aside. Peter could see that many of them wore blood-stained bandages.

For an hour or longer the seven seamen crouched in hiding and watched the activities of the pirates, nor did they stir until they saw the pirates lounging on the beach becoming strangely excited. All were gazing out toward the entrance to the harbor and Peter looking in that direction saw the galleon with shortened sail making the entrance while just behind her moved the *Adventurer*.

Still they lingered in their hiding place until they saw the galleon and her prize come to anchor and saw boatload after boatload of pirates put off toward the beach. Then Vom Worter clutched Peter by the arm.

"Look you, Peter," he spoke, "mark the wherry on the beach well. Remember it and how she lies. I have a plan."

The mate pointed to a small boat a little way up the beach from the point where the other boats were drawn up.

"Come," grunted the bewhiskered old seaman, and leading the way he withdrew deeper into the jungle. Well away from the edge of the beach he called a halt.

"Listen, men, 'tis a desperate chance, but the only one we have except to linger on this island heaven knows how long and perhaps in the end be caught and murdered by Crespo's men. Here's my plan. Vote yea or nay and I'll accept your decision. In a short while night will close down. Most of the Spaniards will come ashore for their carouse. We must get them *all* on shore. When all is ready you, Peter, must play your part. You are young and swift. Do you creep close to that long storehouse where the slaves were working and with flint and steel touch fire to it. The pirate loot is there. They will call all hands ashore to fight the blaze. We will be waiting in that wherry I marked on the beach, and when the galleon is deserted we will take her if we can, and if needs be turn her guns on the pirates while we escape. It is a desperate chance and none of us may live through the adventure, but I am willing to lead the way if you will all stand back of me.

How say you? Let each man speak."

Silence fell on the little group.

Then Peter moistened his dry lips with his tongue and spoke first.

"I'll play my part," he said.

"I'm with you," said another.

"And I." "And I," answered the rest.

"Good men," exclaimed Vom Worter his eyes dancing with a strange fierce light. "Peter, I'll show you how to make some tow. Come, 'twill be dark in a few minutes now."

Stripping dried cocoanut fiber from a nearby palm the mate borrowed a powder flask from one of the men and mixing the coarse black grains thick in the fiber kneaded it all into a ball of quick firing tinder.

"There, Peter. Have you flint and steel handy? Good."

The little party waited then in silence until the tropical night closed down and the dripping jungle began to echo with its strange night noises. Then they crept cautiously toward the beach again.

From their hiding place of the afternoon they looked out upon a weird scene. A big fire had been kindled on the beach and Spaniards lounged about it singing and drinking while black slaves, their naked backs glistening in the firelight, dragged out long tables and benches and brought pannikins of steaming food from a cooking fire.

"'Twill seem as if the whole slimy crew were there now," mumbled Vom Worter, "but we'll make sure they are all ashore. Now, Peter. Be careful, and get back here so soon as you have kindled your fire."

Until he actually started slipping through the dark forest Peter had not fully realized the peril of his part in the desperate work. But as soon as he had quit the little group of seamen and found himself slinking in the somber shadows where the beach and the jungle met, his heart began to pound furiously. His mouth grew dry and parched and he clutched his wad of tow and flint and steel with a tense fierceness. Every instinct made him want to turn back and seek the companionship of his friends again. Only will power and determination drove him to his task.

Slipping along from one heavy shadow to another he approached closer and closer to the pirate village. He drew so near to some of the groups of carousing men that he could distinguish their ugly sodden features in the firelight, and he could not but shudder as he thought of what would happen to him were he discovered at his work.

Still he crept forward until soon he was in the deep shadow of the long storehouse building. Running along the palm-thatched side to the rear he crouched in the darkness, laid his wad of tinder on the ground and with flint and steel suspended above it waited a moment to collect his nerves and steady his hands. Oh, if only the first spark would kindle the flame! He was almost afraid that he could not hold in his jumping nerves to strike a proper light should the tow hold fire.

When his hands ceased to tremble, he struck. The rasp of the steel across the rough flint sounded to Peter as loud as a pistol shot in the blackness of the night. Again and again he struck, and then again before a spark leaped full into the tinder and lay their glowing. Seizing the tow, Peter nursed it between his hands, breathing upon it softly until suddenly it burst into flame. A moment he held it to the thatching in one place, and then another, then forcing the flaming tinder deep into the dried wall of the building in still a third place, Peter bolted into the shadows, and scuttling like a rabbit hurried down the beach to where Vom Worter and the others waited for him.

"Is it fired? Good, Peter. Come. The

wherry, now, before the flames show them our presence."

Softly they made their way down the yielding sand of the beach until they reached the little boat they had marked during the afternoon. The pirates were growing noisier and more boisterous. A black slave was marching through the throng beating a huge brass gong. The pirates welcomed him with shouts and began to gather around the tables on the sand, as the seven seamen with as little noise as possible slipped the wherry down the beach and into the night-shrouded water. A few stout strokes carried them through the dark well away from the beach toward where the lighted lanterns on the stern marked the pirate ship.

"Lay to it, men. Let's reach the galleon ere they discover the fire," mumbled Vom Worter.

The wherry leaped ahead under the force of their lusty strokes. Vom Worter in the stern steered a wide circling course so as to come up under the galleon's counter. They had almost gained her towering sides when wild shouts burst forth and an instant later with a terrific explosion a sheet of flames leaped skyward.

"Blood and wound! There was powder in that storehouse!" hissed Vom Worter glancing shoreward.

The explosion made Peter jump and miss a stroke with his oar. He had been facing the pirate village and saw it all; saw a cloud of black smoke shot with tongues of flame leap high above the palms, saw flaming firebrands thrown in all directions, saw the pirates scatter in panic, then, as they saw first one building and then another break into flames from the far-flung firebrands, they rallied and began to fight the flames.

The wherry had eased softly along the port side of the galleon. On deck Peter could hear commotion, the shouting of commands, and the noise of men tumbling into boats on the port side. Presently one boat and then another put away from the galleon and headed shoreward. The pirates were leaving their ship to go to the assistance of the men on shore. Vom Worter chuckled.

"Good, let them go. The more of them that leave, the better our chances."

A third and fourth boat put away, and above, on deck all was silent.

"Make her fast, men, and follow me," hissed the leader, and with his cutlass in his teeth he reached up, caught his fingers in the carving and fretwork of the stern and hoisted his great bulk upward until he reached the taffrail of the galley. Over this he swung himself and crouching, waited. Peter followed with more difficulty, but presently he was beside the mate. Another man and still another followed until the seven of them crouched there on the narrow pathway of the towering, overhanging stern.

Vom Worter with Peter beside him moved toward the stern window where a yellow light glowed. They peered inside, into the elaborate cabin of the galleon. At a table heavy with silver and fine viands, was a tall, dark-visaged individual dressed in scarlet and black satin with cuffs fringed with lace. He was in the act of rising from his chair as they looked. Peter noted his almost delicate hands as they touched a linen napkin to his sleek beard. He was exasperatingly cool and deliberate in every motion. There was something snakelike and horrible about his movements. Even the fire and the terrific explosion on the pirate island followed by confusion and shouting had not disturbed his composure or apparently interrupted his dinner.

"Crespo!" hissed Vom Worter. "Come."

The mate ducked under the window and slipped to the starboard side. Peter followed him. Below and forward at the lad-

der amidship he could dimly make out, heavily silhouetted against the flame-reflecting water, the outline of a small boat and crew waiting; waiting for Crespo to finish his dinner. A guard stood at the top of the ladder. Peter could see the mounting flames from the island flickering on his polished steel corslet. He was staring away from them toward the fire. So was the anchor watch in the bow.

Vom Worter hissed brief instructions. Then like phantoms he and Peter slipped along the galley to the main deck, their bare feet making no noise.

The guard at the ladder turned just as they closed in on him. His sharp cry was stifled by one of Vom Worter's tremendous hands, and an instant later his steel-corsleted body described a glittering arc as he whirled over the rail and fell with a crash into the small boat below. A torrent of Spanish oaths and a tremendous scrambling followed, but this was cut short as Vom Worter, reaching into a handy shot box, seized a twelve-pound shot and leaning over the rail hurled it downward with all his force. Peter heard the splintering crash as it smashed through the bottom of the boat, and the yells of consternation that followed. Looking over the side he saw two of the pirates scrambling up the ladder while the others struggled in the half-filled and fast-sinking boat. With his sheath knife he severed the ropes that held the ladder and saw it drop and disappear out of sight, weighted down by the two steel-jacketed seamen.

Forward, in the bow, Peter heard the struggles of the anchor watch, but presently a splash over the side informed him that he too had been disposed of, and turning, he was just in time to see Vom Worter rushing across the deck toward a figure emerging from the companionway of the cabin. It was Crespo!

For a moment Spaniard and Hollander stared at each other like two wolves waiting for the first aggressive move. Then Crespo rapped out a fierce sentence in Spanish and his sword flashed upward and outward like the darting tongue of a serpent. But Vom Worter's cutlass whistled through the air, parried the stroke and slashed at the pirate's head. Peter expected to see the Spaniard cloven in twain. But Crespo was Crespo because of his ability to handle himself in any emergency and his lightning-like blade caught the mate's weapon and turned it aside with a shower of sparks as steel grated steel.

For five minutes the battle waged fiercely, Peter standing helplessly by. Crespo's darting blade was terrible. Vom Worter, big and heavy and strong as a bull, was put to it to keep from being skewered through. But the Hollander was no mean swordsman. He gave thrust for thrust and parry for parry and the terrific strength with which he slashed at the Spaniard's head made Crespo stagger again and again as he sought to fend the blows and keep his skull from being split. Suddenly with a hiss the Spaniard leaped in and flashed the point of his sword upward. Vom Worter tried to parry the thrust but was only partly successful. With a cry of fear Peter saw the thin blade pierce Vom Worter's left shoulder. Six inches lower and it would have passed through his heart.

But that thrust was the undoing of Crespo. Ere he could withdraw the blade Vom Worter brought his cutlass down across the Spaniard's sword. The blade snapped at the hilt and Crespo staggered back with a startled look on his face as he surveyed but the handle of his weapon in his hand. The shining blade was hanging from the Hollander's shoulder.

For an instant Vom Worter stood staring at the pirate. Then, with a roar, he flung away his cutlass and yanked the dangling sword blade from his shoulder. He

hissed something at Crespo that Peter could not catch and leaped at the pirate, burying both of his great hands under the Spaniard's sleek beard, lifted him off his feet and dragged him struggling through the companionway into the cabin.

"Look you, Crespo!" he roared, "I want to show you something before I kill you!"

Dragging the Spaniard to the table he forced him backward until his satin-covered shoulders lay among the remnants of his recent meal and he stared upward with bulging eyes in Vom Worter's bearded face.

"Look! Look at this, you hound!" thundered the Hollander and parting his beard and mustache he revealed two rows of yellow teeth.

"Ah, you remember me not, do you? I'm the bo'sun of the *Ulrich* under Heemskirck. Remember! Yes, you do! I was the only man who dared to talk back to you, you swine, and because I did you had my lips cut off and then made your Spanish dogs flog me until you thought I was dead. Ah, you wish I had died now. You dirty——"

Peter cried out and leaped forward to protect Vom Worter. The Spaniard's hand had found the inside of his doubtlet and a dirk gleamed in the lamplight. But Vom Worter saw it flash and with a twist that wrung a scream of pain from Crespo he broke the pirate's arm at the elbow. Then picking him up bodily he flung him into a berth across the cabin.

"On second thought I'll not kill you. I'll hold you until we get you back to Amsterdam where all Holland will have the pleasure of watching you dance at a rope end. Tie his hands and feet, Peter. How, now——"

Peter and Vom Worter turned to find the cabin crowded with men. A dozen of them, a score of them. Nearly all wore blood-stained bandages. They filled the place and flowed out on deck. It was several seconds before Peter realized they were of the crew of the *Adventurer,* all that were left. They had been prisoners between decks until one of the seven venturesome seamen liberated them.

"How, now. And this is fine, men. Where's Captain Kronk?" exclaimed Vom Worter.

"He was killed, all our officers are dead and a lot of our best comrades," answered one of the seamen bitterly.

"So. Well, Crespo will pay for them all," said Vom Worter. "Some one slip that anchor cable. Come. Tumble out now. Let's make sail and clear this place before that wolf pack on shore discovers something is amiss out here. We'll make for Amsterdam with a prize and a prisoner worth taking."

He gave thrust for thrust and parry for parry.

The gale drove stinging sand into set faces.

The Dab Wakes Up

By Brewer Corcoran

Illustrated by Robert E. Johnston

LOU BARDWELL was known to all Green Harbor as "The Dab," which same might be taken as a high compliment out by the Golden Gate where the sand dab is a thing to be desired. But Green Harbor is off the Atlantic coast and there a dab has the value of a rimless zero.

Mr. Farley, who devoted his time equally between fishing and winning the respect of the boys by his jovial, kindly interest in their affairs, had found himself facing a blank wall when he had attempted to sound what was conceded to be the shallows of The Dab's nature. And, because he was not the sort to acknowledge failure, he neglected the mackerel in order to do a little missionary work with that grand old heathen, Cap'n Hosea Folger.

"You're wrong," he argued; "there isn't a man nor boy who hasn't some good in him somewhere."

Cap'n Hosey snorted like a grampus. "Think ye kin find jewels in mud?"

"Pearls come from oysters."

"Oysters make pearls 'cause a grain o' sand makes 'em itch," snapped the old chandler. "If The Dab had the whole breakwater under his hide, he'd be too lazy to scratch."

"They say there's no better waterman," suggested Mr. Farley.

"He's no good. Gave him a job once an' he wore th' top offen a cracker box with his pants. I'd do most anythin' fer ye, Mr. Farley," he said earnestly, "but I give The Dab no more jobs."

Mr. Farley moved toward the door. "I tell you," he said good-naturedly, "you're boxing your compass wrongly about that boy. There's good stuff there. You'll give The Dab a job again."

The chandler's keen, blue eyes twinkled. "When I do," he said, "you walk in an' tell me ye're appointed my guardeen an' I'll shape my course for the foolish house."

"Good-by." Mr. Farley was laughing, too, but, instead of going up the street, turned down the wharf toward a sunny spot where he imagined The Dab would be taking his afternoon exercise. A moment later he was standing above the lithe, powerful figure propped against a pile. The tow head was hatless, shirt open on a brown neck, the long legs stretched full length.

"Lou," he commanded sharply, "wake up!"

The Dab opened his left eye. "Town afire?" he asked languidly.

"Wouldn't interest you, if it were, would it?"

"Might. Sorter like the place."

"Why?" There was sudden interest in the question.

"Live here."

"Call what you do 'living'?"

The Dab only grinned.

"Haven't much ambition, have you? Know anything about boats?" abruptly.

"Why——" The Dab stopped and the grin reappeared. "Don't get seasick," he finished.

Mr. Farley seemed impatient at being so misunderstood. "Oh, I know you're a good passenger," he said. "Do you know anything about boat building?"

"Know it's hard work. Fred Tobin don't mind it, though."

"Fred's fishing. I've bought that old catboat of Cap'n Hosey's and want her put in commission. Fred says you could do it."

"Ain't feelin' just right this summer."

Mr. Farley changed his course sharply, his mind reverting to The Dab's original statement. "I'll have to take her over to Sea View and have Watson do the work."

"Watson's no good," declared The Dab, suddenly sitting erect. "He don't know a dory from a square rigger. Why fool with that Sea View crowd? You can't beat the Harbor for boat builders."

"I'm not so sure. Sea View's a live town."

"So's the Harbor. Best place on earth. Been good to you; better stick to her, sir. No call to give Sea View the laugh on us."

"Didn't know you were so proud of Green Harbor."

"Maybe not. When do you want that boat?"

"Week after next."

"All right. Saturday night. Pog an' me'll do her."

"It's a bargain." Mr. Farley gave no sign he had accomplished far more than he had hoped. With a nod he turned away but a pleased smile moved his lips. He had discovered the weak link in The Dab's armor of indifference to life and that it was pride in the town of his birth pleased the man greatly.

When Cap'n Hosey and other old-timers heard that The Dab and Pogey Conklin were to rebuild his boat, Mr. Farley received much sympathy and belated advice. The verdict was unanimous that the job might be finished early in the twenty-first century, yet it was agreed that it would be a good job when done.

Mr. Farley visited his boat twice the next day, but found no sign of The Dab. The following afternoon he discovered him asleep in the lea of the worm-eaten hull. All he could get out of him was that Pogey was too busy to undertake such Herculean labor. He carried away the feeling that all was not well, that he might have erred in his estimate of Lou Bardwell's loyalty to Green Harbor.

Thursday found a dozen planks missing from the boat. Mr. Farley went home more content and later accepted Cap'n Hosey's sympathy with a calmness which mystified that worthy.

At the end of the first week Mr. Farley was frankly surprised by the thoroughness of what little work had been done but still more amazed not to have found The Dab on the job. It began to dawn over him that Lou did not want to be seen at his task and that, possibly, there was a sensitive nature beneath the rough shell. He began to believe the boy did not want the town, in which he had such secret pride, to make fun of his loyalty. That afternoon he avoided the Folger store and regretted he had ever said The Dab had guaranteed to rebuild his boat.

It was not until the middle of the week that he succeeded in finding Lou near the boat. He had noted how little had been accomplished, but was the more amazed to hear childish laughter. The Dab, in the cockpit, was busy with a saw. "I'm buildin' the kitchen on behind," he heard him announce. "Room for a stove and everything."

"But I haven't any stove, Lou."

Mr. Farley peered over the rail. In the door of the cabin poised a little girl of five, eyes fixed on the shipwright, who was busily engaged in building a doll's house. "Hello!" he exclaimed. "What's going

on here, Lou? What are you doing?"

He had expected The Dab to color at having been caught loafing, but the boy merely nodded. "Meet Maggie," he said. "Cap'n's daughter from the *Jabez Parker* an' she never owned a doll house in all her life."

"But I got a perfectly splendid one now," cried the child. "Lookit what Lou made me."

"It's waste lumber," explained The Dab, under his breath.

"That's all right. Didn't know you were a house builder."

"Sorter a jack o' all trades, I reckon," grinned Dab.

"Come see my dollie house," invited little Maggie.

He accepted promptly. This new side of Lou's character was a revelation. But, as he talked, the man's mind was busy with The Dab's promise to deliver a rebuilt boat that Saturday night. And the time was all too short. Having aroused the boy he had no intention of permitting him to neglect his obligation. "Lou," he said at last, "I'm glad you've done this for Maggie, but I hope you've not forgotten you promised me my boat day after tomorrow."

This time the lean face went red. "Meanin' I'm loafin'?" he asked belligerently.

"I'm merely recalling your promise."

The Dab rose. "I didn't ask pay for this job," he said; "I've done it in my own time for my own reasons. If you don't like the way I'm doin' it, get some one else. I'm buildin' a doll's house."

"Wee! Hear old Dab."

The jeer came from the other side of the boat. The three turned to discover the freckled face of Jim Russell grinning above the rail. For an instant The Dab was frozen to inactivity. Jim was his worst tormentor and, in a flash, he saw the full effect of the story which would be spread throughout the Harbor. Then he caught a glimpse of Maggie's trembling lips. "If I want to build a doll's house," he snapped, "that's my business."

"Good one for you," chuckled Jim. "Useful job. Pogey in partnership?"

"You can ask him when I'm through with you."

But Jim knew when discretion was of value. He was off at full speed before The Dab could leap from the boat. The next moment Lou had picked up the doll's house. "Come on out of this, Maggie," he ordered gruffly. "We'll finish it on the *Parker*."

"Wait a minute," exclaimed Mr. Farley. "There's too much misunderstanding here."

The Dab whirled on him. "I've said all I've got to say," he snapped. "You can complain when you come 'round Saturday night."

"Do you mean you're going to try to finish this job?"

"What's the use in my sayin' anything more? You'd just say I was blowin'. But I'll tell you one fact: If you're a friend of young Russell, cork his yap about my business, or I will."

Mr. Farley tried; he was so distressed he was willing to do anything. But Jim had met the fellows and the story of The Dab and the doll's house was all over the Harbor in an hour. That he had neglected a good job in order to play with a little girl was so like what they had all expected that Mr. Farley found himself on the defensive even while he struggled to protect the boy.

He kept away from his boat, however. He hoped The Dab would make good his promise, but he could not see how it would be possible. He knew that if he went to him the unexpected temper would blaze out again and he realized that would be fatal

to all his hopes of winning the boy.

It was after Saturday's sunset when he ventured to the beach again. The boat was deserted but the work was finished and, as he looked it over, he nodded slowly. It was work well and thoroughly done. The Dab had kept his word. But on his way home he met Russell. Again he had evidence that The Dab could fulfill a promise.

For a week he tried to corner Lou. Not only did he want to pay him but to compliment him. When he did find him, he received another shock. The Dab coldly refused to accept either thanks or money. Mr. Farley, supposing his attitude was due to his criticism of time spent on that doll's house, tried to explain. But Lou would not listen.

It troubled the man for he could see no way to win back The Dab's confidence, no way by which he could appeal more forcefully to his suspected pride in Green Harbor and so make opportunity for Lou to prove himself not only misjudged by others but misunderstood by himself.

The *Jabez Parker* returned from her trip to the westward and anchored in the harbor before sailing for her home port. Her skipper suspected a storm. Within the hour Cap'n Hosey spread the report that The Dab had been offered a berth aboard her.

Mr. Farley heard and, with squared jaw, sought Lou. "Are you going to sea?" he demanded abruptly.

"Maybe."

"Why? You hate it."

"Hate a heap of things."

"What else?"

The Dab met his eyes squarely for the first time since the incident of the doll's house. "Havin' the Harbor say I'm no-account, for one," he retorted.

"Whose fault is that?" Mr. Farley shot back at him.

"Mine, probably." The voice was low now and the eyes were on the ground.

"Absolutely," stated Mr. Farley. He knew he must strike now and strike hard. "You're a quitter, Lou. You start a thing and are too lazy to push it through rapidly or you get mad about nothing and quit because you haven't sand enough to acknowledge you're wrong. You haven't courage enough to face anything four-square. You've proved it by planning to run away on the *Parker*. You said once you had a little pride in Green Harbor. She'll have a lot of pride in a chap who runs away."

"I haven't any family; what am I running away from?"

"From a chance to come through clean in your home town," snapped Mr. Farley and walked away.

The man had meant to slash deep but he had not the vaguest idea how savage a wound he had made. The Dab had been angry before but now he was thoroughly mad. Not only had he been told he was afraid of the sea but frankly informed he was a sandless coward in all things. If that was the general opinion of the Harbor, the sooner the *Parker* weighed anchor the better for him.

He went to the shack where he existed with Pogey Conklin and tied his few belongings into a bundle. Night came while they ate and with it, the first threat of the storm the *Parker's* skipper had prophesied. "Gettin' rough in th' harbor," mumbled Pog. "Ain't goin' to row no boat back from th' *Jabez* to-night, Lou. Take yer out in th' morning'."

"Want to go to-night."

"I'm comfortable here." Nor could Lou shake his determination to sit with his feet in the oven. The best he could do was to extract a promise for a start at dawn. But at dawn the harbor was a seething cauldron as the first gale of the fall tore in from the northeast.

Mad before, The Dab was furious now.

He knew he could not get to the *Parker* in such a sea. He had no desire to spend another day in the town. He stood by the patched window, his eyes fixed on the raging sea.

Half an hour later he left his place to rush out-of-doors. "Somethin' doin' out there," he called. "Crowd on the beach. Come on!"

Pogey Conklin had heard the wind. With generations of wreckers behind him, he needed no second call.

Long before they reached the crowd by the wharf, they knew what was about to happen. The *Jabez Parker,* her engine reversed, was dragging her anchors and headed toward her death on the breakwater. "Blast it!" growled Pogey. "Why couldn't she break up ashore? Won't be much salvage out there."

"The kid!" gulped The Dab.

"All in the day's work," shrugged Pog. "Lucky I wouldn't take yer aboard last night, Lou."

"An' there ain't a tug in the harbor!"

Lou's voice was louder than he realized. Cap'n Hosey turned. "Telephoned to Sea View for the big motor boat."

The boy's head went back as if a fist had crushed against his chin. He started to speak, controlled himself. "It won't be in time," he said at last.

"We can't do nothin'. Fred Tobin says no boat could round th' breakwater an' live."

The Dab's eyes narrowed as they turned seaward. He knew the worth of Tobin's judgment. On the doomed *Parker* a man swarmed into the rigging and waved frantically. Ashore, the gale drove stinging sand into set faces.

More men came running down from the town. Mr. Farley panted up to the group. "Can't we do anything?"

"Pray," groaned Cap'n Hosey. "We've sent to Sea View for help."

"If Sea View can do it, Green Harbor can," declared The Dab. "I'm going."

"It's sure death." Cap'n Hosey's gaunt hand clutched at him.

"It's that for the kid if the Harbor quits," returned Lou. "Green Harbor don't quit. Come on, Pog."

"Don't be a fool," warned Cap'n Hosey. "You can't make it."

"Can try." He threw off his ragged coat as he raced to Folger's dory and grasped its gunnel. "Give a hand," he called.

The men shook their heads. The Dab laughed with contempt. "Fine gang to hail from Green Harbor!" he sneered. "Lay hold, Pog."

Pogey Conklin wiped the back of his hand across his dry lips. "Can't make it," he said. "Shove!"

Alone they hauled the dory to the water. Even behind the shelter of the breakwater, the waves crashed. The Dab looked at his friend. "Don't have to go," he suggested.

"Go where yer can. Harbor ain't goin' to miss us much nohow."

The two looked at each other a second. They had lived together four years. "Ready, Pog?"

"Ready, Lou."

There was no other word. They knew each other and they knew their work and their chances. For an instant, Pogey held the stern as Lou shipped his oars. For a second they both studied the breakers. "Now!" Together they spoke. Lou's oars bit deep as Pogey shoved off. As the bow rose, Conklin sprang over the stern and, like a cat, scrambled to his seat. They hung on that first comber, started back, then Lou's oars caught again. Even as he held them, Pogey's oars dropped and the dory wavered, then slipped down the comber's back.

There came a cheer from the beach, but the two did not hear. The fight was hard

enough now but it was as nothing to what they must make when they tried to round the breakwater. Foot by foot they fought away from safety into the jaws of death.

In the lee of the breakwater they won a brief respite. Through the spray which hurtled over the jagged granite they caught vague glimpses of tossing masts. Down the wind came a shriek, but they could not tell whether it was the gale or a human cry. Slowly, surely, Pogey Conklin drove the dory nearer that seething rampart where the sea swept in around the corner of the wall. The Dab only paddled now. His head was turned and, over his shoulder, his eyes sought the chance to make the rush which should end either in a swing to temporary safety or the smash of engulfing waves.

There was an instant's check, a cry and both pairs of oars surged. A second shout, a short, sharp stroke. The dory careened, lunged, rose to meet the rushing sea. Fight, fight, fight, with quick sharp strokes they held their own. On the beach, old Hosey Folger buried his face in his hands and Mr. Farley's lips moved in silence.

Once Pogey missed a stroke and the dory slewed and shipped a sea. Once The Dab felt a stabbing pain in his taut back but only shook his dripping head and pulled the harder. They were gaining slowly, inch by inch, but how they were to make the next turn in the trough of the sea, neither cared to imagine.

Above the boom of the breakers on the distant beach, sharper than the slam of the seas on the foaming breakwater, came a grinding, rending smash. "She's hit!" The Dab's voice was agonized.

Conklin dared to raise his eyes. "They're gone," he said dully. "Ease off, Lou. Waves'll drive us back inside."

"Bend those oars!"

"What's th' use?"

"Green Harbor don't quit. Give way!"

Conklin gulped. What Green Harbor did or did not do, mattered nothing to him. Life was good and he had done what he had only because his only friend had asked him to. If they went near that jagged wall, they would be hammered to pulp. "Let's try to get back," he said.

"Row!"

"I——"

"Row!"

He had never heard that note in Lou's voice before. In some way he knew he must obey. They were well out now, had edged out of the teeth of the wind. A moment more and The Dab raised his head. Now the *Jabez Parker* was on their right. He saw a mast go by the board. With set teeth, he calculated their distance and smaller chance. "Let her drift!"

On the crest of a sea the dory shot for the breakwater like a toboggan down an icy hill. Pogey's oars, too, were flat. He saw the plan. It was as if the *Parker's* stern raced out to meet them. "Hold her!" yelled The Dab.

The schooner's deck was almost awash but she had swung a trifle on striking. The little lee gave them their small chance. The Dab swayed to his feet. Both hands gripper the *Parker's* rail. There was a thud. A woman lay on the dory's boards. A second later a little heap lay beside her. Lou shouted in sheer relief. His hands slipped. The dory leaped. Only Pogey's clutch saved them. Two men leaped down. "Pull!" commanded one. "Third man's gone. All here."

For forty minutes men stood on Green Harbor's beach with clenched fists. Strained eyes ached but sought no relief away from the raging sea. Time after time sharp groans escaped them but each time the sodden boat fought back into view. Now it came with a rush. In its stern balanced the lithe form of The Dab, braced against the oar he steered by as he

took the last grim chance to shoot the end of the breakwater.

Then came the first gulped cheer. Then another and another. A dozen men rushed waist deep into the combers. Their hands caught the gunnels. The dory was whirled in on a wave, checked, rushed to safety. In the stern the erect figure collapsed into a soggy heap.

Cap'n Hosey Folger and Mr. Farley bent over to lift Lou out and the eyes of both were wet with something which was not the salt of the sea. "I'm—I'm all right," panted the boy. "Get the kid where it's warm."

"They're taking care of Maggie," said Mr. Farley.

"Then lemme go." He staggered up and brushed his wet sleeve across his face.

"Green Harbor wants to say something to you first, Lou."

"Lemme go! I'm a joke to Green Harbor."

"Rather a grim joke," declared Mr. Farley. "You've done what no one here dared attempt."

"And here's one Green Harbor man who says he ain't got yer sand, Lou," spoke up Cap'n Hosey, "but he's got enough to own he's been wrong. Yer pure grit an' there's a job waitin' for ye up to th' store."

Mr. Farley smiled for the first time that morning but, instead of saying "I told you so," he put an arm around The Dab. "I knew you had it, Lou," he said. "Now do for yourself what you've done for Green Harbor."

Did You Know That--

The speed of a steamship's propeller increases when it encounters water in the vicinity of an iceberg?

Paper bootlaces are made in Germany?

The moon moves 3,350 feet per second?

Women are seldom color-blind?

Female spiders are much bigger than the males?

Hair grows faster in summer than in winter?

Nearly a mile of wire is used in an ordinary piano?

A square foot of honeycomb contains 9,000 cells?

An orange tree will bear fruit until it is 150 years old?

Every adult should drink three pints of water per day?

There are 11,000 rooms in the Vatican, the Pope's palace?

Potatoes are used extensively in the manufacture of buttons?

The habit of eating and drinking hot things is largely responsible for our bad teeth?

If a man had the leaping powers of a flea, in proportion to his size, he could jump 76 miles?

Sailing on Ice

By Elon Jessup

HAVE you ever streaked across the hard frozen surface of a river or lake at a speed of forty miles an hour? That's pretty fast traveling for a wind-propelled craft and I can tell you that you know you're going. It seems at least a hundred. I've traveled in airplanes at far more than a hundred miles an hour without feeling the same thrill or sense of speed that I have on the ice at forty.

If you care for a sport that is warranted to keep every nerve a-tingle, literally take your breath away and which at the same time is far less risky than most people think, I heartily commend to you the experience of sailing on ice. Thereafter, slow, plodding, water sailing of summer will strike you as being pretty tame in comparison.

Ice sailing is much speedier, mainly for the reason that there is practically no resistance to the ice. You're almost as good as a bird. There's not the resistance of the water to check your speed. You skim across the polished surface in a manner that seems to annihilate time and distance. Sometimes you outsail the very wind itself. That's a fact; actually beat out the wind that is propelling you.

There are two popular and very practicable methods of sailing on ice. One of these is that spider like noiseless skeleton of sail, planks and metal which is known as an ice boat. The other is a far less elaborate outfit, demanding only a sail held in your hands and a pair of skates on your feet. I refer to the skate sail.

An ice boat is the speedier of the two. In fact it is the fastest wind-propelled craft in existence. Not infrequently one of these streaks of speed makes sixty miles an hour and more during short spurts.

Quite a few ice boats are home-built affairs. If any one handy with tools has the inclination to build one there's no reason why he shouldn't go to it; that is, provided he also has some time and money at his disposal. For at the outset, let me remark that if an ice boat is worth building at all it's worth building well. I wouldn't advise any one to tackle a job that would cost him less than one hundred dollars. I'm speaking of the cost of materials alone. If you can't swing that, it's better to confine your efforts to an inexpensive skate sail. Sometimes ten or a dozen fellows get together on a coöperative scheme, share work and expense without the whole burden falling upon one alone. That's often a sensible and practicable idea.

The first two important steps in the construction of an ice boat are as follows: figure out the probable cost and get a full and detailed set of working plans. You'll get in deeper than you ever expected unless you look up costs. You will get all mixed up from the start and never know where you stand unless you have a set of

plans to consult; but with these before you it will be fairly plain sailing. They tell you the whole story with a clearness which written instructions cannot duplicate.

I should like to present a set of plans with this article but the space required makes it impracticable. However, ice boating is so extensive that you will probably have slight difficulty either in borrowing or copying a set in your own locality. That failing, you can get a book of plans from the Rudder Publishing Company, 9 Murray Street, New York City, for seventy-five cents.

A good set of working plans shows you definite specifications down to the slightest detail. Therefore, I'll treat the subject in a general sort of way, offering a few suggestions that may prove of value in looking the ground over and after getting to work.

Among the chief requirements of construction are strength, lightness, and proper balance. Don't forget strength, especially. An ice boat is subject to unusual strain for its weight. The lateen rig and a modified sloop rig (jib and mainsail) are the two types of boats mostly built. Both are good but the latter is the more popular.

By way of showing you what you can get for your money (and provided you spend it with wisdom), you can build for one hundred dollars or thereabout a staunch and serviceable jib and mainsail craft about twenty feet long and ten feet wide between the forerunners. The mast would be about fifteen feet high, the boom the same length or a little less and a floored cockpit about seven feet long. Don't let these figures interfere with those shown on the working plans of the boat you choose. I'm just giving some general information for preliminary guidance.

The "backbone" and the runner plank constitute the hull of the boat. These are what you tackle first. The backbone is well named and therefore should be a substantial part of the boat's anatomy; it is the center timber running the length of the craft. The runner plank crosses the backbone at right angles a short distance ahead of the halfway mark; in squaring up, see that you get an exact right angle.

A well-seasoned piece of spruce about seven inches by four inches is suitable as a backbone. Pick out a piece that is free from knots and checks. Sometimes it's not easy to find a single timber as long as twenty feet; in which case you may have to splice two shorter pieces. Do a mighty firm splicing job; reinforce the joint and glue with lag screws. Oak, ash, well-seasoned pine or spruce will do for the runner plank; dimensions of, say, ten feet, by ten inches, by four inches.

You're next ready for the runners. There are three of these, one at either end of the runner plank, while the third is your rudder. The two fore-runners should be about four feet long and five inches high; the rudder about a foot less in length. White oak is suitable wood.

The bottom of each runner is shod with a cast-iron shoe screwed into place by machine bolts. Soft cast iron for these shoes is usually considered preferable to ordinary cast iron. The iron hardens to the proper denseness with use.

In various ice-boat racing centers such as Red Bank, New Jersey, or Madison, Wisconsin, runners can be bought either ready-made or made to order by expert builders. It is sometimes advisable for an amateur builder to turn this job over to an expert. Similarly, the tiller and rudder post. So far as sails are concerned, get an estimate from a sailmaker. If the cost of his work above that of material doesn't run very high, have him do the job. You can make your own spars.

The foregoing indicates some of the prime essentials in the building of an ice boat, a real up-and-going craft of which one may justly be proud. There are, of course, a dozen and one additional details requiring your attention, such as running and standing rigging, blocks, turn buckles, chocks, and similar matters. But a good set of working plans will explain all these.

A few words in regard to the navigation of an ice boat. It's very different from that of a water boat. There's no such thing as "sailing free" on ice with the boom far out. The sails of an ice boat are always kept close hauled, both in going to leeward and windward. Remember too that an ice boat answers its tiller with astounding readiness; you have to watch this. Too sharp a turn of the tiller will spin an ice boat around completely. Keep an eye out for "shell" ice, stones, and similar obstructions. And when approaching a crack, never cross it diagonally; take it head on.

Now as to the construction of a skate sail. This is easy. All you have to contrive is a small sail and a few simple spars. Your own body is the mast, your feet the hull and the skates on your feet are keel and steering gear.

There are various kinds of skate sails. The most simple and inexpensive rig is to all intents a kite turned on its side. Two heavy bamboo spars, say nine and twelve feet long respectively, are lashed firmly together at right-angles, one end of the longer spar being about two feet from the intersection. Over this framework can be stretched unbleached muslin if you don't care to put money into more expensive sail material. The sail should be secured to both the upright and lengthwise spars by a series of loops. And of course the edges of the sail should be hemmed to prevent raveling.

That's the sort of an outfit you can slip together in a couple of hours. A better sailing rig takes more care, time and money. And it's really worth the difference. One of the most serviceable rigs is the lateen pattern, similar in appearance and most essential to the type commonly used in canoe sailing. Running rigging is eliminated; that is the main difference.

Forty square feet of sail is quite enough for the average-sized person; a short man might find even this amount a trifle unmanageable. Figure more or less from the standpoint of your own height and comfort as regards the size of an outfit. There are two spars to the lateen rig, one along the lower edge of the sail, parallel to the ice when sailing, and the other at about a forty-five-degree angle to this, along the front of the upper edge of the sail. The two spars are of equal length—about ten feet. Midway on one to midway on the other across the sail runs a sturdy stretcher stick which serves to keep the sail taut. Another stick, parallel to the lower spar, runs midway from the stretcher stick to the upper spar; this is the handgrip, the means of holding the rig when you're sailing.

Such is the lateen rig in its entirety. A few words as to details. The most simple manner of attaching the sail to the spars is by lacing, although the edges can be hemmed over the spars if you prefer. Metal hooks offering a slight amount of play are suitable means for fastening together the two spars where these meet. The spars may be spruce, pine, bamboo, or sectional thin steel tubing such as can be purchased in a hardware store. The tubing arrangement is a convenient form in that you can take the rig down like a sectional fishing rod when it's not being used.

Don't have any part of a skate sail fastened to your body when sailing. Safety with an unmanageable sail lies in its im-

mediate release. Wear skates which have a reasonably sharp degree of curvature. Sharp turns are frequent and it is difficult to turn quickly on a flat-bladed skate. When using the type of rig described in the foregoing, you always keep on the same side of the sail. That is, you don't lift the sail over your head when "coming about," as in the case of the "square sail," another pattern. On one tack your position is to the windward of the sail and on another tack to the leeward of it. Skate sailing demands a certain amount of practice. Take it easy and venture forth only in a fairly moderate breeze at first and until you have gained some skill.

A Smell of the Sea

By Wilbur S. Boyer

Illustrated by Frank Rigney

"WHATCHER lookin' at?" demanded Johnnie Kelly brusquely, annoyed by the scrutiny of his friend, the tramp sailor.

"I was admiring the skintillations of that remarkable jew'l on your digit," answered the bummer Bill longingly.

"Oh, the ring, hey? You're the second feller inside of a week that's been took by that ring. That stone is a genywine charmeuse."

The hobo scratched his head.

"A real charmeuse?" he demanded eagerly. "You ain't fakin'?"

"A charmeuse of der first water," Johnnie assured him. "Some folks say it shines up like a sure-nuff Svelt charmeuse; but I can't swear to that."

"Danged if it don't sparkle like a Svelt," agreed the tramp with the enthusiasm of a connoisseur. "Let me hold it in my hand. I never had a real charmeuse in my hand before."

"Takin' it off means bad luck," objected Johnnie.

"It's a lucky stone, you say?"

"I wore it when I caught that spy," declared Johnnie proudly, "and every time I've took it off I've tore me pants or spilled the beans."

"What wouldn't I give for, say, seven days of real luck!" said the lime-juicer soulfully.

"I wouldn't part with it for FOUR bones," replied Johnnie significantly. "Jack Van Zarn has been tryin' to get it from me for a week."

"I haven't five," said the tramp regretfully. "Fact is, I'm a boneless herring."

He sat for some time with his chin in one hand while he chewed the mitten-shaped leaf of a sassafras sapling.

"And that shows the world is all wrong," he went on sententiously. "Just take a look at me, Mr. Kelly. I'm a rich man."

"Huh?" exploded Johnnie sitting up suddenly. "Roll over on your side, Bo, you've got the nightmare."

"By rights, I'm a rich man," repeated the sailor. "But it is my luck when I git to the slop chest there ain't no rights. I git lefts."

Johnnie lolled back once more against the armful of hay that he had brought from a stack in the near-by field to make the trunk of the shady tree softer. Far across the field he could just make out the figure of his chum, Jack Van Zarn, propped against an alder with the end of his fish pole lying in the brook before him. Jack was either asleep or giving a good imitation.

When the lime-juicer had invited Johnnie to the shade of the woods, Jack must surely have surmised that the hobo wanted to see his red-headed companion in private, for he declined Johnnie's invitation to join them.

"Go as far as you like, Bill," said John-

nie lazily. "I feel like I could swally any kind o' lie to-day."

"You flatter me, Mr. Kelly. If I knowed how to tell good lies I'd sell 'em to the magazines and I wouldn't have to haggle over five bones. Unfortunately, my intellect is too frail to wander far from truth's thorny path."

"I'm listenin'," encouraged Johnnie. "Spiel away."

Bill looked around furtively among the trees and across the sunny field toward the blissful Jack to make sure that he and Johnnie were alone.

"Did you ever wonder why me, a leathery old salt, is flopping around like a gasping fish far from the smell of the sea way up here among Addie Rondack's mountains? Addie, old girl, would hop on a chair and squeal if she knowed what's hid in the hem of her skirts."

He spoke with an air of mystery; and Johnnie pricked up his ears.

"It's the sea that throwed me up here, like a bit o' drift wreck; and I longs to git back and fill my snoot with the pleasant whiff of salt air. I ain't told nobody, but I'm goin' to let you in on this because you've been my best friend, Mr. Kelly. Raise your right hand. Now say after me, 'I ain't gonner tell nobody nothin' what Bill tells me, or hopes to choke and he kin spill my blood.' "

Johnnie repeated the sentence with his fingers crossed. If there was anything worth hearing, it was worth revealing to a good fellow like Jack Van Zarn.

"Partners, then, till debt do us part," proclaimed Bill funereally, grasping Johnnie's hand. "And to continue:

'Twas the good ship *Queen of Sheba* that sailed the fearsome ocean in the days when Kaiser Bill's sea serpents was having their own way and Uncle Sam was just saying, 'Naughty, naughty!' I was on lookout in the weather chains when all of a sudden a big tin fish pokes its snout right under our forefoot and WANG! I starts for heaven's pearly gates by express, no stop before the twenty-third floor. Somebody must 'a' see the mistake—any half-witted angel would 'a' knowed I was billed wrong—and I come down pronto. Next thing I knowed I was scooped up and found

"A charmeuse of der first water"

myself straddlin' a enemy submarine.

The roof was all deserted so I walks up to the skylight and knocks. No answer. I try again. No answer.

I spots the perilouscope and I hollers down. Same answer. I takes out a nickel and drops it in the slot and waits. In two jiffeys somebody opens the scuttle.

He jabbered something at me.

"All right," says I, "don't care if I do. Duck and I'll folly."

He took me to the captain, who pumped me in first class English.

"I lived in America for ten years," says he at the end, wiping away a crocodile tear. "I weep every time I send some of your dear countrymen to watery graves. I am only doing my duty. I am sure if the kind people of America knew it, they would sympathize with me in my hard position."

"Take me ashore with you, cap, near Water Street," says I, "and I'll interduce you so you kin explain it yourself. I got a hunch they'd appreciate it muchly."

"I fear I will not set foot in dear old New York till after the war," says he. "But then I am going to move there for a permanent residence."

He gets up and shuts the door very quietly and beckons me close.

"You seem like a pretty decent seafaring man," says he.

"Strange sight on this tub, ain't it?" says I, but I guess it goes over his head.

"I think I can trust you," says he.

"Now you're spoiling the compliment," says I, "because you know danged well you'd be crazy to trust one o' your own kind, and I'm the only living thing left to trust," says I.

He scowls so I knowed he hadn't any sense of humor and I'd better go easy on the Percy-flag.

"As I said before," says he, "I don't expect to set foot on America till after the war. Maybe I never shall. Who knows? I may be sent to the bottom like many of my brave brothers. But if I live, there is something I want that I could not do without—and I want some of that something waiting for me in America."

He goes prying a board out under his bunk and brings out a heavy wooden box, with a lid and a padlock, and places it on the bunk.

"Now," says he, "I want you to swear."

I done it, but it didn't satisfy him.

"No," he growled. "I am giving you a chance for your life, and in exchange you give me your solemn affy-davy to do with this box what I direct without the slightest variation from orders. If I ever reach the Fatherland again, I shall immediately communicate with our representatives in America, giving them your name, your present ship, and your description. With that our secret service could find you out no matter how you tried to throw them off the track. I tell you this so you will not be tempted to break faith with me. Will you promise? Or do you prefer to go up on deck and sit till we drop from under you? I can get some one else."

I didn't take long choosing, and the German congratulated me on my good sense.

"Your ship has not sunk," says he, "and she isn't going to. I shall send you aboard and I must manage to get this box there, too. If I don't tell you what's in it, the temptation to open it is going to be too much."

He opens the door again to make sure there ain't no honest German sailor at the keyhole, then comes back and whispers into my ear. . . . When I come to, he was fanning me with his cap.

"Remember!" he growls, "if you play me false, you cannot escape my vengeance."

"Suffering moses!" I chokes, or words to that effect. "It's a odoriferous piece o' business, I'll say. Howsomever, I ain't

bucking the whole o' your sneaky secret service. But where do I get off?"

"You'll be taken care of," says he, "never fear. You can realize now that if my crew should see this box depart with you, they might misjudge me; and if they should take it into their heads to open the box, you can imagine the consequences. They'd probably decide at once that I had gone out of my mind; for, surely, no sane officer of the Kaiser would——"

"There ain't nothing that smells to heaven that an officer of the Kaiser wouldn't do," I interrupts cordially.

"Enough," says he coldly. Then he drops his head into his hands. "How to get it to your ship without their suspecting!"

"I have it!" he cried at length. "After I've had you taken out of this room, I'll order a time bomb sent in, and I'll pretend to put it into a canned-goods box; but I'll put this strongbox in instead. Then I'll order it hid in the boat that takes you to the *Queen of Sheba.* Once aboard, I'll have all your crew confined while the box is slipped aboard and hid in the starboard coal bunker. My crew will believe we are planning a surprise for you folks."

"Yare," says I, "that'll sure appeal to their fine sense o' humor."

"You can dig it out at your leisure," says he, ignoring my appreciation.

Well, to shorten a long tale, as the cabin boy remarked when he tied a knot in the skirts of the mate's nightshirt, what a awful temptation it was to break the lock and stick my snoot into that mysterious box! I couldn't hardly believe what that Heinie told me. I knowed he'd sent many a good ship to Davy Jones and I knowed he hadn't sent no gold and precious stones down with 'em if he could help it. Would he take his chances on me getting a fat wad o' that dough into a safe and sane country where it could be stowed away for some bright

"Whang! I starts for heaven's pearly gates by express"

day coming? Did he figure on me being too scared of the Kaiser's minions to disobey his instructions? Then I remembered what would happen if I opened it and all he said was true, so I postponed the snoop, put the box back in the crate, and nailed it up.

One dark night when he was anchored in the Hudson I swipes the dingey swinging at the boom and lands that crate in amongst the rocks near the railroad tracks

"When I came to he was fanning me with his cap"

off Mount Tom—Eighty-some Street—left it right out in plain sight to fool any nosey. Got back to the ship without being caught, too. Next day I gets my discharge, picks up that box; and having my pay, I ships it to myself here in Ticonderoga.

My instructions says turn it over to Snyder, the assistant superintendent of the Ti Graphite Works, because the German captain was a friend of his. I kept putting it off, trying to screw up courage enough to open the box. The U. S. had got into the war, and that made me think I hadn't oughter turn it over to anybody a German officer would pick.

One night who should take me by the collar but Snyder himself.

"Haven't you something for me?" says he.

I've got a turrible temper when I'm roused, Mr. Kelly, but I didn't want no argument, so I told him yes. He induced me to go with him and carry it to his house and he give me two bones. That's the last I see of the box. But Snyder hunts me up again, gives me fi' dollars and says I'll get five more if I'll take a sealed letter to the Swiss consul in New York and not say nothing to nobody about it. You know now why he didn't want to mail it. The Swiss consul had charge of German affairs. Any one in Ticonderoga communicating with

the Swiss consul right after that failure of Germany's agents would be under suspicion; and Snyder stood above suspicion. He knew enough not to use the mails and counted on me being too scared to peep. He was right, too.

Well, later he was caught red-handed, Mr. Kelly. He's dead, and the war's over long ago; but I ain't never had the carfare to get to the center of the universe. Tell you what I'll do, Mr. Kelly. You're going to New York sometime. I'll swop this letter for that there charmeuse ring o' yourn.

Johnnie looked down at his lucky ring.

"Let me see the paper," he demanded.

"It's all sealed up with fierce looking wax."

"Fat lot I care, let's see it."

"You'll give it back if you don't take my terms?"

"Sure."

It was an impressive looking document. Without an instant's hesitation, Johnnie tore it open. Out dropped a queer looking manuscript.

The tramp put his head over Johnnie's shoulder.

"Guess that's German writing," said he.

"Sure it is!" sneered Johnnie. "Anybody kin see that. I'll swop my charmeuse ring for dis and take me chances. Here. Only, so's not to lose the luck, you put the end o' your finger against mine and we'll slide the ring right along. Then it won't never be off somebody and the luck can't drop out."

The ceremony was performed with solemnity and a mumbling of incantations.

"Don't never take it off," warned Johnnie, "or somethin' fierce is sure to happen."

"You're a brick, sir," cried the tramp enthusiastically. "I'm going to take a side-door Pullman for Albany this afternoon, so I must be leaving you. I'll need luck. I'm tired o' manual labor, and I see an ad in a Albany paper that just suits me—one o' them jobs you kin set down to all day and hold converse with customers. Well, so long, Mr. Kelly. Much obliged."

"What's the job," called Johnnie as the tramp vaulted lightly over the fence.

"Manicure," answered the hobo; and with a friendly wave of the hand he started toward town.

For some time Johnnie sat studying the queer manuscript. At length tucking it into his pocket he went over to the brook and tickled Jack Van Zarn with a spear of timothy until Jack gave up the idea that it was a fly and actually opened his eyes.

The odd piece of writing interested him at once, and he listened to Johnnie's tale with big ears, neither of them worrying over the danger to Johnnie's blood which, according to Bill the tramp, was to be the penalty of revealing the secret.

"Give me time to work it out, Johnnie," said Jack. "I'll run over to-night with it after supper, unless it's a good deal harder than I suspect."

And at dusk, after chores were done, when Jack put in an appearance at Sookie Spregg's farm, he was bubbling with excitement.

"Smouch a pick and shovel and a cold chisel and a hammer and sneak them out to the flivver. I've left it down on the road opposite the graveyard."

Heart beating rapidly, Johnnie reached the car; and without a word, Jack started pell-mell toward the town of Ticonderoga.

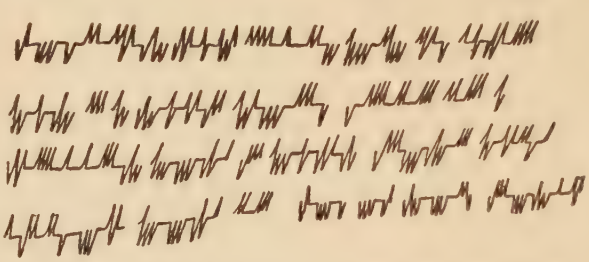
"What's the paper say?" asked Johnnie, seeing that his companion was not inclined to be communicative.

"Keep a stiff upper lip and do just as I say," warned Jack. "Then if we're caught, there's one of us knows nothing."

Though Johnnie's opinion of Jack's sagacity had always been high, it rose

rapidly at these words of wisdom; and he asked no more questions.

The automobile was driven through the town and out along Ti Creek toward Lake George. They left the car near an old barn; and carrying the pick and shovel as unostentatiously as possible, they proceeded on foot. It was after eleven o'clock and the outskirts of the town were deserted. Everybody around was in bed. Yet Jack took extraordinary precautions. And naturally, if any one had set eyes on them, their queer antics, designed to mislead, would have at once aroused suspicion. But, fortunately, no snooping adults were abroad.



A copy of the cryptogram that fell out of the letter when Johnnie tore it open

Into the back yard of the Snyder residence Jack led Johnnie, the pair crawling on hands and knees, dragging the pick and shovel after them, the hammer in Johnnie's belt, the chisel in his pocket. Since the death of Snyder, alias Schneider, the tool of Kaiserdom, the house had remained empty. Mrs. Snyder had gone to parts unknown.

Jack drew up in the shadow of an oleander bush—it was a bright starlit night—and drew out a tape-measure.

"Hold the end of this against the southwest corner post of the fence," he whispered.

They measured off along the fence twelve feet north and twelve feet east; and where from these two points two lines met at right angles in the yard, Jack put a stone.

"Under that stone is the strongbox," he declared impressively, "unless I've misunderstood that cryptogram entirely."

Johnnie seized the pick and started to work. Turn and turn about the boys swung pick and shovel. In half an hour the pick struck something that was unmistakably wood. It sent a chill up Johnnie's spine.

"Jumpin' mackerel!" he choked, "honest to goodness, there is somethin' there!"

They scooped around and brought to view in the faint light of the stars a wooden box. They carried this into the Snyder woodshed; and here where no ray could escape Jack for the first time flashed his pocket light on the find.

"It's true!" he breathed in awe. And overcome with fatigue and excitement they sat down to rest and to tremble with the nervous shake that any normal boy would experience under such circumstances.

"That paper was in German, wasn't it?" ventured Johnnie.

"German, nothing!" said Jack. "That was a cryptogram—a puzzle writing—a code that no one was supposed to be able to decipher."

"And you made it out?" Johnnie was incredulous.

"I did. In the first place, the average length of words in English is less than five letters. In German it is much more—nearer nine. That gave me a hint. When I called the horizontals spaces, and the crosses periods, it made the average between four and five. Says I, it's English and I'm on the right track. Then I got to saying, 'Down, up; down, down, down; down; up, up; up, up, down, up'; pausing at the spaces. Don't that remind you of something? It did me: dash, dot; dash, dash, dash; dash; dot, dot; and so on. It

was so dead easy, I had to laugh."

"I don't see anything to laugh at," said Johnnie.

"That's because you never learned the General Service Code — International Morse. Here's a translation:

Notify Captain Heim twelve feet each way Southwest yard post. SNYDER.

"But it don't say what yard," objected Johnnie.

"My guess was the most likely, wasn't it?"

"You're a wiz, Jack. But what's the answer?"

"The answer is, the Captain expects to come to America—you know even if the fightin' has stopped he can't come yet—and he counts on the contents of that box to make him happy."

"Mebbe it's loot from captured vessels," said Johnnie, "and then again mebbe it's his own honest money sent here for de good times comin'. Here goes to open the box."

He loosened the hammer from his belt and gripped the cold chisel.

"Hold on!" objected Jack in an awed undertone, that was perhaps a bit overdone to be genuine, "you're really not going to open it?"

"Why not?"

"It isn't yours."

"Pooh! It's me duty. We must find out whether it's really the Captain's or whether it's stolen property."

"Guess you're right," admitted Jack. "Strike away. But I'm going to watch from outside. Maybe it's dynamite."

Johnnie, who was about to strike a blow at the lock, jumped back.

"Wow! I never thought o' that!" said he. But quickly he recovered his nerve and spat on his hands. "Oh, well," he declared, "if it's dynamite, you jist tell everybody I was doin' me duty last time you saw me."

At the first blow, the lock snapped. With trembling fingers Johnnie threw back the lid and bent forward eagerly, Jack's pocket torch in hand.

Back he jumped quickly, holding his nose; and Jack burst into laughter.

"Phew!" ejaculated Johnnie. "There ain't nothing in it but a note and a bad smell."

"What!" cried Jack, his elation vanishing; and he dived back into the shed to see for himself. "Well, what do you think of that! The old pirate has stung me!"

Johnnie read the note aloud:

Dere Mr. Van Zarn:

Escuse me I got hungry and et the limberger. Yours BILL.

"So you was puttin' up one on me and got stung yourself, hey?" said Johnnie. "Well, I don't feel so dirt mean about that ring I give Bill, now. I thought for a time there was really somethin' here."

"What ring?"

"The Svelt charmeuse ring, of course. But I wisht you'd get stuck wid it. Wait till Bill takes it off and looks inside."

Jack's hand dived into his trousers' pocket and came out with the wonderful ring.

He grinned sheepishly. On the inside was the inscription,

EAT FATHER'S OATS
A PRIZE IN EVERY PACKAGE

The Octopus

(This is an actual occurrence witnessed by the author in the Indian Ocean, on a coral reef by the Seychelles)

By Rodney C. Wood

Illustrated by Harry H. A. Burne

OFTENTIMES I would launch my sailing canoe, a native dugout, at dawn and float leisurely from my little island to the main one four miles away. At that hour the sea is like a sheet of glass, rippleless as a mirror. In its clear translucent water everything can be seen to a great depth, such depths as are only visible in tropic seas.

It was never-ending joy to float along with the current over the rows of coral reefs, each with its own particular denizens. The massive steep-sided main barrier reef, bounding the deep sea channel, great mounds of coral thrusting up to the surface at low tide, shapes strangely like gargantuan brains, cathedral pillars, arches, trees, flat mushrooms, and a thousand and one other wonderful shapes of living coral.

Incredible colors. Great depths of blue, prussian or indigo; caverns of phosphorescent royal or kingfisher; straits and narrows of azure blending into emerald; shallows of light green; throughout flashes of mauve or lilac or pink—all changing incessantly, living, like a rare opal. A sea garden of unspeakable beauty. Its inmates fish of every form and color imagination could depict, butterflies, dragon flies, ribbons, globes, ghouls and goblins, demons, all were there. A child let loose with a box of paints might reproduce those shapes and colors, each more strange and wonderful than the last. Small fish-sharks cruising leisurely in search of prey; their torpedo-dash after it. The sudden flash of the tentacle of a small octopus hidden in a coral cavern, or motionless in exact blending colors on top of a pinnacle, shot out like lightning at some unwary passerby, and as quickly withdrawn, sent a shiver down the spine.

One suddenly became conscious of a deathlike menace, ever lurking amidst all that beauty and seeming peacefulness. Peace in very truth only seeming, for in those gardens and depths is ceaseless war, war of life preying on life, incessant, never ending.

Range follows range of coral, divided by deep channels, as reef after reef grows up in the shallowing waters till they straggle out into little isolated coral clumps almost up to the shore. The fish and other life grow smaller and smaller too on each reef. Nature does her grading well in her schools of the sea.

As the canoe drifted over a ledge in the shallows of my own lagoon, the two whiplash feelers of a crawfish waved from beneath it. Before he could withdraw to better shelter under the overhanging shelf my fish spear had struck. He was a good-sized fellow, and would do nicely for lunch!

We drifted out over the barrier, surfless now in the wind truce of dawn, and that peaceful sea. The long swell of the great Indian Ocean rolled gently along the channel, hardly perceptible. The sun rose behind the island in blazing glory. Within a few minutes the expected ripple of breeze came. I hoisted my little lugsail, steering on a well-known landmark to make the entrance through the barrier reef on the other side of the channel, two miles away.

Passing safely through it and over the inner reef I chose a long parallel channel of moderate depth and only a few yards wide, to run down to a point directly opposite where I wished to land. The wind was a mere whisper still, but running directly before it the sail helped a little. Getting a paddle to work made progress quicker, though I craved no speed on that dream-enchanted morning. The peace of it all was upon me, and my lazy paddle strokes blended into a reverie.

A small canoe with a native fisherman claimed my attention ahead. He was a youth of perhaps sixteen years of age, though in that lotus land his body was as big as that of an average white boy of eighteen or nineteen. Floating nearer, I noticed that he was naked except for a small loin cloth and kept leaning over the side of his canoe, peering intently through the water to the reef only a few feet beneath him. I swung a little to port to pass directly astern of him.

When I was about thirty yards from him he suddenly dived over the side of the canoe with a gentle splash. I thought he must be trying to pick up the broken mooring line of some fish trap he had there, so paid little attention to him. But when right abeam my mind seemed to become alert to the fact that all might not be well. The fisher boy had not yet come to the surface again. In the water, by the canoe, was violent commotion, as if a struggle of some sort were taking place in the depths.

My canoe came about with a strong stroke of the paddle, and the pulley on the mast gave a little squeal as the sail dropped. Wearing only a pair of shorts, with no shirt or shoes, I was ready for action if needed.

I decided to do nothing, except stand by, until that struggle stopped. Then if he did not appear I would enter the arena with the fish spear or paddle.

"Sharks!" the thought flashed through my mind.

"No, impossible," argued my reasoning brain, "the water is much too shallow, and we are on the inner reef with an ebbing tide."

I waited on, no understanding having come.

For a few more seconds the water boiled and churned, stirring up sand and cloudiness. Then appeared a head, which spluttered, took a deep breath, and finally was followed by a body trying to regain its feet. A thrill of horror shot through me; round the body were the tentacles of an *octopus!*

Another violent struggle, and the boy was on his feet on the coral, as my hand drew the knife from the sheath on my belt. Held at arm's length he had the body of an octopus clutched in his left hand. Its tentacles, some four feet long, writhed about him. One after another his right hand tore them free, but they were eight and he had only one hand to use.

It seemed to me time that I should do something. Shouting to him that I was coming with a knife, I seized the paddle, having drifted a few yards away again. But as I did so he called back in the local patois:

"It is all right. I can manage him. Leave it to me, sir."

I felt only too inclined to do so!

The sight fascinated me. I had a sensation of unspeakable horror, almost of nau-

sea. The octopus looked like an appalling great spider, loathsome and abominable, and a man was in its ghastly clutches!

Yet there was something heroic in that fight too. The sun had risen behind the islands. Outlined against the glorious colors was this living statue of golden bronze. The perfectly proportioned muscles rippled beneath his skin, the water only just covering his waist. At the length of an arm that bloated horror, with tentacles waving around, now one, now another, fastening over him. As the boy wrenched them away, they gave with a sucking sound, as of tearing stiff silk. Red blotches covered his body. Now one smashed down over his face only to be torn off in a second. Now on his back, now his shoulders, several at once.

I felt sick at the sight, sick with the hideousness of the thing.

The boy was trying to free his right arm so as to reach to the body of the octopus. There is a kind of pouch there. If the hand can be got to it to invert it, the brute dies at once, but a false move, and a finger may pay forfeit from the parrot-like beak, hidden at the base of the circle of tentacles, though the creature seems strangely loth to use this powerful weapon.

The uncanny fight went on. I could see that the octopus was helpless, but the boy did not seem in much better case. Now that it had no hold on the rocks of coral it could exert no leverage on the boy, but he, in his turn, needed all his strength to hold it at arm's length and disengage those clinging tentacles. The strength of these brutes is incredible, out of all proportion to their size.

But the boy knew this game, and gradually the whiplash strokes of the tentacles grew less, the struggle less violent.

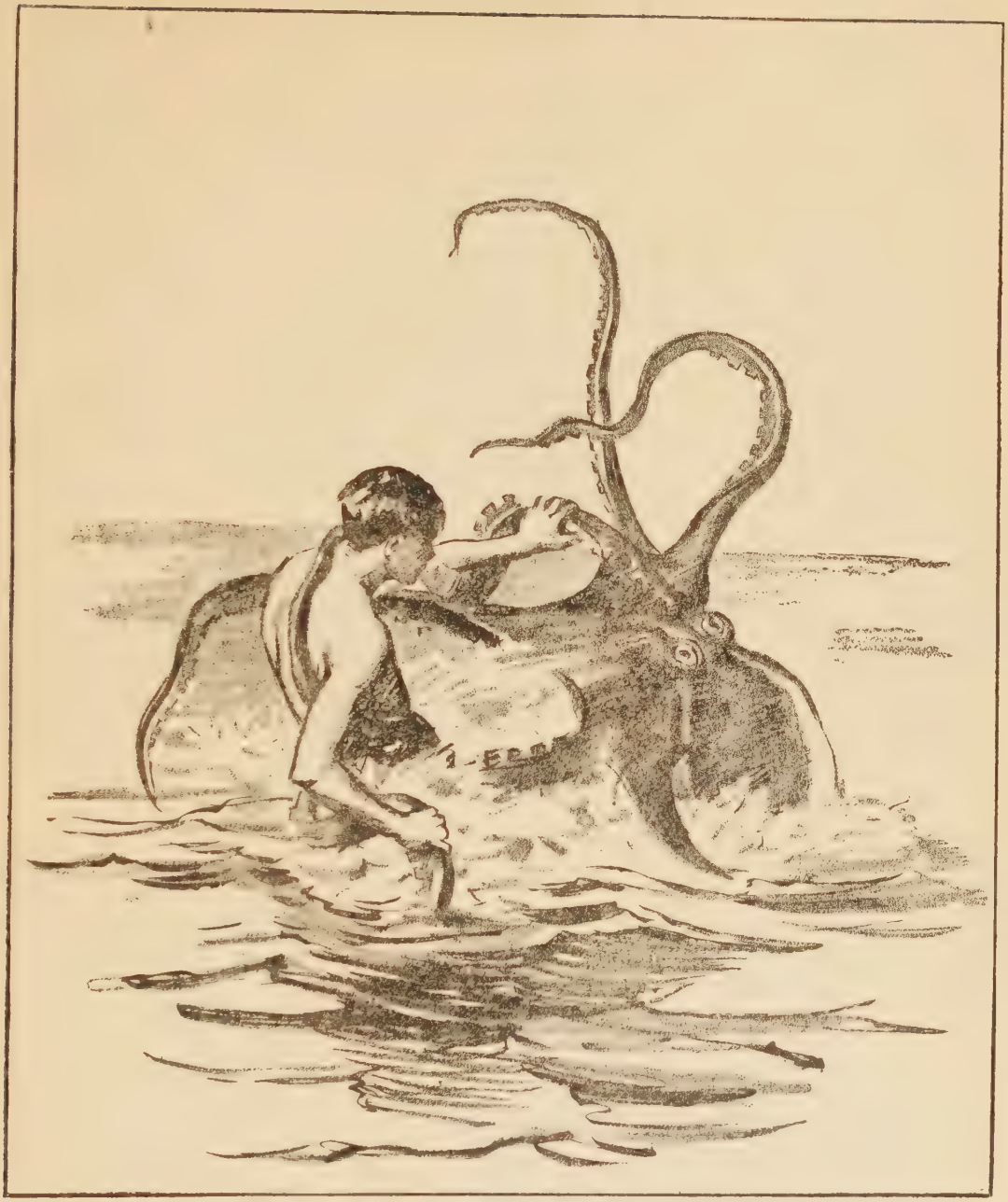
The sight of such a fight had fascinated me into a kind of dreaminess. It seemed an unreal product of imagination. I lost count of time. Even so does a large snake fascinate its prey. The boy was winning—gradually.

A sudden spring on his part brought me wide awake again. There was quick play of the hands, a wrench, and the tentacles dropped, a lifeless mass. He had got "home" on the pouch and inverted it. The *horror* was dead.

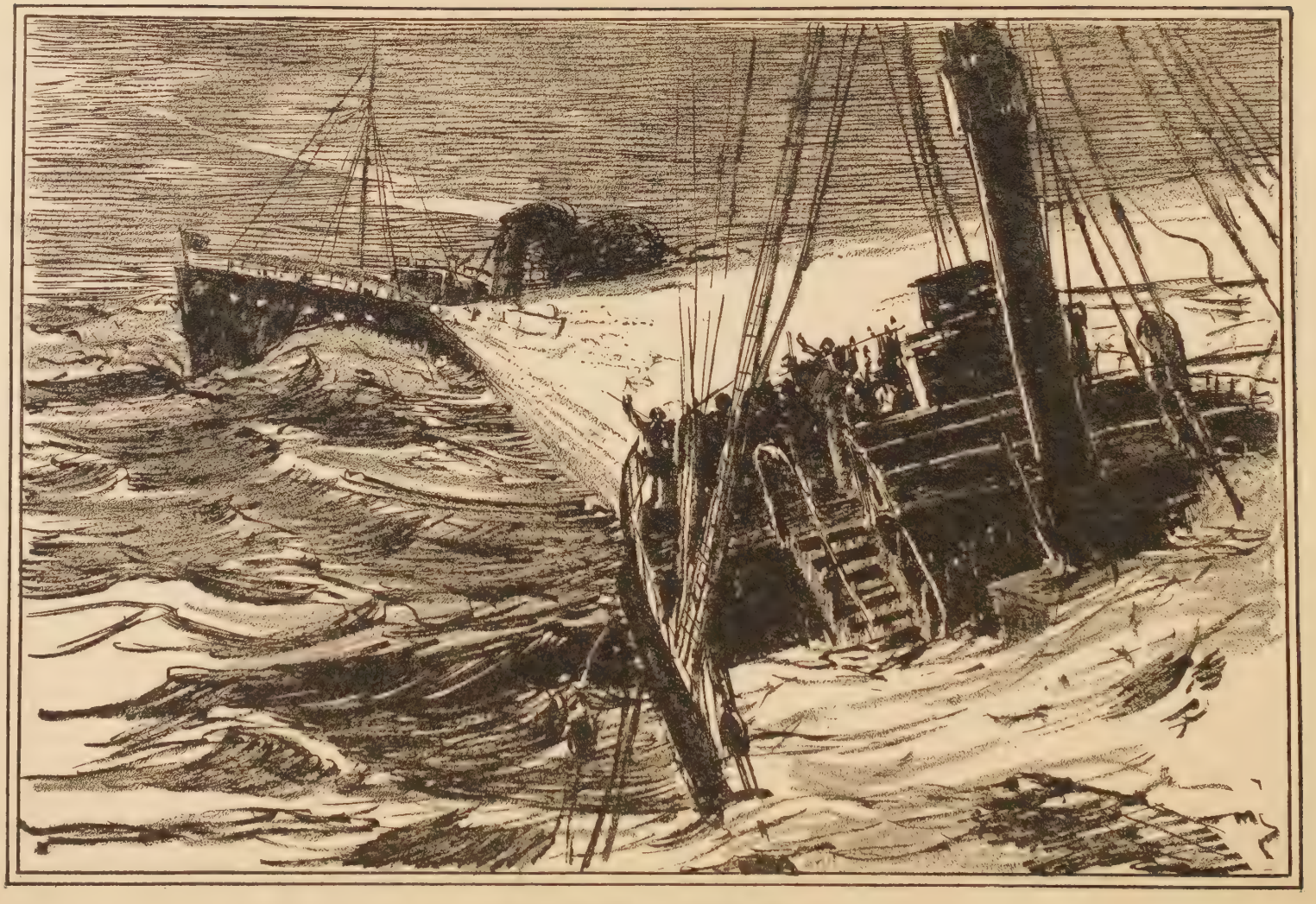
"I don't like those brutes," said I.

He smiled, looking at the jelly-like mass.

"It will make a good soup, sir."



Its tentacles, some four feet in length, writhed about him.



A Coast Guard cutter to the rescue.

Coast Guard to the Rescue!

By Lewis E. Theiss

Photographs from the United States Coast Guard Service

"SOS—SOS—SOS." Through the roar of the wintry blasts that were sweeping the Atlantic Ocean one day in early March came this wireless cry of distress. The call was from the steamship *Louisiana,* ashore on the shoals off Ocean City, Maryland. The day was frightful. Like demons unloosed, the winds howled and screeched. The sea was lashed to fury. With indescribable frenzy the waves drove forward under pressure of the tempest. The awful blasts, tearing away their crests, hurled them onward in blinding, stinging sheets of spray. Clouds of fog obscured the vision. Blown from her course, her master unable to get his bearings, the good ship had piled up on the sands and was pounding badly. Savagely the breakers beat against her hulk, swept across her deck, and tore at her with demon fingers hungry for her destruction. Her crew had fled to the rigging, and there, soaked with spray and lashed by icy winds, they clung in helpless fear, as the hungry seas reached for them. Apparently there was no help and no hope in the world for them.

But in the wireless house sat a determined young man with his finger on the key. Over and over, into the tempest-torn sky he flung his cry for help: "SOS—SOS—SOS." And presently in his listening ear sounded these welcome words, "We are coming to your assistance."

The message was from the Coast Guard cutter *Yamacraw.* Stationed at Norfolk, seven hours distant, she had picked up the far-flung cry for help. And now, fighting wind and wave with every ounce of her power, the little cutter was rushing to save these helpless sailors, clinging so pitifully to the *Louisiana's* rigging.

From one o'clock till eight at night the gallant cutter fought her way onward. Then, miles distant, her commander detected a glow through the darkness. It was the lights of the *Louisiana.* As he drew near, he broke out his searchlight and cautiously steamed in toward the beach and the stranded steamer.

Far up in the breakers lay the *Louisiana.* Around her roared that awful belt of heaving waters, so torn and tossed by the tempest as to be but a smother of foam. Yet steadily the *Yamacraw* came on, drawing nearer and nearer to these awful breakers, with wind and sea both ready, should anything go wrong with her machinery, to drive her to her death in that seething sea. Slowly she approached. A leadsman sounded with a line and bellowed out the depths to the captain on the bridge. Half a mile from the *Louisiana* the *Yamacraw* found the sea was shoaling rapidly. It was unsafe to go farther. Yet the cutter was still too far away from the stranded ship to render aid. No shot line could carry across this vast space. No small boat could live in the seething sea that separated the two ships.

Reluctantly her commander brought her about, head to the sea, stern to the breakers, and dropped his anchor. Slowly the huge anchor chain was paid out, and wind and sea pressed the little cutter farther and farther into the breakers, while the leadsmen steadily called out the depths. To the very limit of safety the captain of the *Yamacraw* allowed his boat to drive on toward the shoals. Finally he gave the word, and the anchor chain was made taut. But the little cutter could not yet reach the helpless steamer. The gun that carried the life line could not possibly shoot so far.

An empty keg, to which a light line was attached, was floated toward the *Louisiana*. Repeated efforts ended in failure. Always the current bore the floating keg too far to one side of the stranded steamer. Her crew could not reach it by any possible means. There remained but one chance of rescue, and a very slender chance it was. By a miracle, a small boat might get to the *Louisiana*.

The commander called for volunteers. By dozens the sailors stepped forward. An experienced officer was put in charge. Ten of the best oarsmen were selected to row the boat.

"Lower away the surfboat," roared the commander.

Willing hands assisted. The gripes were unshackled and the surfboat released from its strongback. The falls were loosed and the surfboat lowered to the rail. Into her leaped the chosen crew. Moments of anxious suspense followed, as the little boat hung over the raging sea. A favorable instant came.

"Lower away!" cried the captain.

The small boat dropped into the water. Quickly it was thrust away from the cutter, lest it be crushed against her side. And before an engulfing wave could overtake it, the surfboat was headed toward the *Louisiana*, her oarsmen gave way, and the little craft was sweeping safely through the snarling sea.

Anxiously the crew of the *Yamacraw* crowded to the rail, breathlessly watching the battle. The night was like a cave for blackness. The glow of the *Louisiana's* lights, and beyond them the flaming beacons of the Coast Guard crew from a nearby shore station, feebly illumined the darkness. The *Yamacraw's* searchlight sent a brilliant beam that bored through the dark like a gimlet. And this electric finger rested on the surfboat, picking her out in the dark, as she fought her way forward.

Warily the surfboat approached the steamer. But before a sailor could slide down the line into the boat, a huge wave, springing apparently from nowhere, rose suddenly from the sea, leaped on the *Louisiana*, tore across her deck, and crashed down into the surfboat on her lee side. Under tons of icy water the surfboat sank from sight.

For a second the onlookers stood numbed. Then down the rigging came leaping the men from the *Louisiana*. Fearless of wind and wave they rushed to the rail. Ropes and life belts were flung to the struggling men in the sea. But the tide, the very end of the ebb, sucked them away from belt and line, dragged them seaward, and carried them out toward the depths of the ocean.

Instantly the commander of the *Yamacraw* called for volunteers and launched a second boat. But hardly had the lifeboat gotten under way before it capsized, and its crew was thrown into the water. Two boat crews from the *Yamacraw* were now struggling in the sea. Almost at the same moment, the cutter was jarred from stem to stern. She had gone too far and was on the shoals. Instantly the commander signaled full speed astern. The cut-

ter strained and struggled to free herself from the grip of the sands.

Again a boat was manned and lowered, and again disaster followed. Three boats had now been capsized.

Long before this, the crew of the first boat had been swept far to seaward to death. But the tide had turned. The second and third boat crews were no longer swept outward. There was still a chance to save them. A fourth boat was lowered. It, too, capsized. Yet the men still pressed forward, begging to be allowed to make another effort. The fifth boat was put over, and then sixth and last. And each capsized. Five boat crews were close at hand in the water and the men on the *Yamacraw* were helpless to assist them. For now that the tide had turned, the struggling men were swept shoreward, into the maelstrom where the cutter could not go.

Miraculously, the tide bore them on. Each man wore a life belt, and now both wind and sea hurled them shoreward. There, waiting to rescue them, were the men from the nearby land station of the Coast Guard. Into the breakers they plunged, as the sailors were washed near, and man after man was dragged ashore and hurried to shelter. Some of the rescued were unconscious but their skilled rescuers soon resuscitated them. When the final count was made, not a man had been lost, save the volunteers in the first boat. And later, the crew of the *Louisiana* was gotten ashore. The *Yamacraw* made her way back to Norfolk, where the rescued men joined her.

To lose so many men was an occurrence as unusual in the Coast Guard as it was tragic. And the loss of so many small boats was perhaps unprecedented. Otherwise, the stirring events connected with the effort of the *Yamacraw* to assist the *Louisiana* were all in the day's work to the Coast Guard. Time and again these little cutters, about two hundred feet long, have ventured into the surf and either rescued the crews of stranded ships or brought the ships themselves off, or done both.

No matter whether a ship piles up on the sands of Maryland or rides helpless off Nova Scotia, or calls for assistance in Puget Sound or on the coast of Alaska, always a Coast Guard cutter is stationed near, to go to her assistance. Day or night, in fair weather and foul, these little bulldogs of the sea fare back and forth on their errands of mercy. And if a vessel goes ashore, it hardly matters where, not far distant will be located a land station with skilled surfmen ready to put forth in their surfboats to rescue those in peril. Like beads in a huge necklace these 325 stations—formerly known as the life-saving stations—stretch along all our shores, whether of ocean or great lakes, and even our inland rivers have their crews of these trained savers of life. In 1922 the Coast Guard rescued from positions of extreme peril almost 3,000 persons. Vessels assisted contained more than 14,500 souls. The total value of all ships assisted, with their cargoes, was in excess of $35,000,000.

Vast as is this great service of saving lives, it is only one of the beneficial activities of the Coast Guard. Sweeping the seas clear of derelicts is another difficult and important part of the work. Every derelict is a menace to navigation, a potential destroyer of ships and lives. During 1922 the Coast Guard destroyed no less than forty-eight derelicts.

But if the ordinary derelict is a menace to navigation, what should be said of icebergs? The greatest marine tragedy in history, the sinking of the *Titanic,* was occasioned by an iceberg. Growing out of that disaster the International Ice Patrol

came into existence. Thirteen nations are allied to guard shipping from icebergs. But Uncle Sam does most of the actual patrol work. During the months when icebergs are running, a Coast Guard cutter patrols the iceberg fields night and day, watching for dangerous bergs and every few hours broadcasting warnings to ships.

Usually bergs disintegrate before they get so very far south. But in 1923 an enormous berg came sailing southward that showed no signs of ever going to pieces. The Coast Guard cutter *Tampa* was on patrol at the time. Day and night the *Tampa* sailed with this berg which was 250 feet high, many hundred feet long and thick, and probably 1,000 to 1,500 feet below the sea level. It finally became necessary to destroy this berg and for the first time in history, a berg was blown up with mines attached to each end of a line fired over it with a shoulder gun.

The shock of the explosion so affected the ice that within a few hours the great block had entirely disintegrated. By the time the berg was blown up, it had reached the latitude of Baltimore.

Heroism is a tradition of the Coast Guard. Ever since this service, originally called the Revenue Cutter Service, and consolidated with the Life-Saving Service in 1915, was formed away back in 1790 members of its personnel have been doing deeds of daring and heroism. Yet it remained for a boy, a mere lad in his teens, to perform an act that for sheer courage and devotion has hardly a parallel in the history of our country.

The lad was little Jimmy Nevins—"Smiling Jimmy Nevins," his shipmates called him. He was a member of the *Seneca's* crew. In time of war, the Coast Guard becomes part of the Navy. The Coast Guard cutters were used, during the World War, to convoy ships. Their record is marvelous, particularly that of the *Seneca,* which suffered more attacks from enemy submarines than any other vessel in the Allied forces.

One day in autumn the *Seneca* was convoying a fleet of twenty-four freight ships from England to Italy. Suddenly an explosion was heard and the collier *Wellington* signaled that she had been torpedoed. The *Seneca* turned and dashed toward her, firing into the sea as she came, and dropping depth bombs in the hope of smashing the submarine.

The crew of the *Wellington* abandoned its ship precipitately. As the panic-stricken sailors swarmed abroad the *Seneca,* the *Wellington's* captain said, "If my cowardly crew had not deserted me, I could have worked the *Wellington* to port and saved her. She was torpedoed in the starboard bow. The number one hold is full of water, but she would have remained afloat."

Ships were what the allies needed more than almost anything else. Lieutenant F. W. Brown at once asked his commander, Captain W. J. Wheeler, then in charge of the *Seneca,* for permission to try to work the *Wellington* to Brest, 300 miles distant. Permission was granted. Lieutenant Brown called for volunteers. Dozens of sailors leaped forward. Lieutenant Brown chose a handful of men. They slid down into the boat the *Wellington's* crew had just left. Half a dozen of the latter, ashamed of their act, followed them. Lieutenant Brown was not quite ready. He had been asleep when the explosion occurred and had rushed half clad to the deck. Now he was drawing on long laced boots. Smiling Jimmy Nevins knelt before him and began to lace up the boots. "Please, Mr. Brown," he begged, "may I go along?"

"NO," said the Lieutenant. "This is no job for boys."

"Please, please, let me go," begged

Jimmy, and when the officer again refused, he began to sob. "Won't you please let me go," he begged. "I can sling chow for you, Mr. Brown, and you'll need a mess boy. Please let me go."

The Lieutenant was halfway down to the waiting boat. He cast a last look upward. "Please let me go," sobbed Jimmy, and the tears streamed down his face.

"Come on, then," assented the Lieutenant, reluctantly, and Smiling Jimmy slid down into the boat.

Never did men display greater heroism than did that handful of American Coast Guardsmen on the *Wellington*. The fires had died down and there was not sufficient steam to turn the propeller. The ship lay dead on the sea, a sure mark for the submarine, should she fire again. Yet those men not only boarded her, while their comrades steamed away at top speed, but part of them went down into the fireroom where, if another torpedo hit the ship, death would be almost certain. There in the awful heat they worked double shifts. Some of them had never fired a furnace before. Other raw hands passed coal, hour after hour. Little Jimmy was everywhere. He not only helped the cook, and slung chow, but he kept watch and passed coal with the best of them. Soon the *Wellington* was heading for Brest at seven knots an hour. The chances for success were great. And success meant a ship saved for the Allies.

But a storm came up. The *Wellington* was down by the head and the sea poured over the bow and into the hold. The pumps could no longer hold their own. Inch by inch, the ship settled lower. She became unmanageable and rolled helplessly. It was only a question of time until she would drop from sight.

A call for help was flashed, and the steamer *Warrington* came racing to her aid. But the *Warrington* was miles away, and hours must elapse before her arrival. The ship settled lower and lower. From an afterhold planks were secured and life rafts made and placed by the rail, where they could be shoved into the sea at a moment's notice. The storm increased. Every wave that washed over the *Wellington* caused her to settle lower.

In the wireless house the wireless man sat at his key hour after hour, begging the *Warrington* to hasten. At 3.25 in the morning, when the night was like ink and the sea raging furiously, Lieutenant Brown telegraphed: "We are listing badly. We cannot stay afloat much longer. Please hurry." And five minutes later the wireless man sent this message for him: "We are leaving immediately. Stand by to pick us up. We are standing by some life rafts we have made."

Now the life rafts were lowered into the sea. Every man on board leaped after them—every man excepting Lieutenant Brown and Smiling Jimmy Nevins. He refused to obey the order to leave the ship. Quietly he stood by his commander, waiting to serve him. With a powerful electric torch, Lieutenant Brown was now signaling to the *Warrington,* which was coming fast but was still three-quarters of a mile distant.

"My men are in the water," he flashed. "Please hurry."

The surging seas, pounding through the open forward hold, suddenly burst the bulkhead with their pressure. The *Wellington* settled rapidly by the head, at the same time turning. Lieutenant Brown crawled aft and over the taffrail, which was now high in air, and standing on the very stern of the ship, continued to flash his directing signals to the oncoming rescuer. Smiling Jimmy crawled after him. A sweep of the flashlight as the Lieutenant was crawling up the steep deck, revealed the Lieutenant's feet. Smiling

Jimmy crept over the rail and once more knelt before his commander.

"You haven't taken your boots off, sir."

And whipping out his knife, he calmly cut the laces and succeeded in pulling off the Lieutenant's heavy boots, even as the stricken ship was preparing for the final plunge. Before he could strip off his own shoes, the *Wellington's* boiler exploded. The after part of the ship rose high in air.

"Jump," cried the Lieutenant. And together he and Smiling Jimmy Nevins went down into the cold black waters.

Hours later they found the Lieutenant, more dead than alive. But Smiling Jimmy Nevins was never seen again. He was of the stuff of which the men of the Coast Guard are made.

Did You Know That--

Thibetans greet each other by rubbing noses?

Over 150 different colors are obtained from coal-tar?

A drop of blood goes round the body in 22 seconds?

The right hand is more sensitive to the touch than the left.

Many kinds of beetles have two eyes on each side of the head?

Lions and tigers become docile as lambs when they scent lavender?

Roses originally came from Asia?

Jews originated the custom of hand-shaking?

The Chinese stand change of climate better than any other race?

It would take a snail 14 days 5 hours, traveling continuously, to go a mile?

Herrings will not live in aquariums?

The skin of a large whale is two feet thick?

Coal did not become common fuel until 1625?

A spider in Sumatra has legs seventeen inches long?

In a year a horse eats nine times its own weight in hay?

The color of the Red Sea is due to certain marine plants in it?

An engine consumes more coal in cold weather than in hot?

The average person speaks about twelve thousand words a day?

A grain of iodine will color seven thousand times its weight of water?

Lobsters will cast claws from sheer fright?

Beasts of prey are not usually good for food?

A swallow can keep up a speed of 90 miles per hour?

More than half the human body is composed of water?

There are no microbes 2,000 feet above the level of the sea?

Blue Hole and Bait Casting

By Dan Beard

With Illustrations by the Author

Simon Peter saith unto them, I go afishing.
They saith unto him, We also go with thee.

WHEN Tom and Hi and I fished off the board rafts in Ohio we fished for channel cats, "white bass," buffalo, and occasionally yellow bass and paddle fish.

When we fished off the log rafts in the Licking River we fished for mud cats and channel cats and caught many gars that we were not fishing for. When we fished in Bank Lick we fished for "Bank Lick bass," probably the calico or strawberry bass. When we fished in Brookshaws Pond and the other ponds made by filling the streets in on low ground and leaving a hollow in the middle of the square, we fished for "pizen" cats, in other words, bull pouts. On rare occasions in fishing off the wharf-boat where the ferry landed, just below where the suspension bridge now stands, we caught splendid strings of jacksalmon, known in the East as wall-eyed pike. Sometimes we caught "New Lights," known in the East as crappies, a fish that was supposed to have made its appearance in that neighborhood at the same time as the people who belonged to a religious society and called themselves New Lights.

We knew nothing about pickerel, trout, or black bass. Some of them may have inhabited some of the waters, but I doubt it; we never caught them and we never saw them; but the "little pickerel" are, nevertheless, said to be common in the Ohio.

One glorious day my picturesque and

distinguished daddy sold some paintings, and he felt rich, so, like the real artist that he was, he immediately sought some way of spending that money to delight the family, and took us all up to Yellow Springs, Ohio. My! but that was a paradise for a nature-loving boy. Such lovely snakes! black snakes, ring snakes, garter snakes; also mud turtles, soft shell turtles, rock bass, mud-suckers, and thousands of all kinds of birds. Then there were so many interesting water plants in the clear streams unknown to Kentucky muddy waters. The old yellow spring boiled up in the center of a pool and gilded all the tin dippers with a substance that had the sheen and color of real gold.

But that did not interest us half as much as did the skunk that came into the hotel cottage where a sick boy lay and ate all the fried chicken while every one sat around breathless and spellbound, afraid to move. Or the great hay pile in the barn where both girls and boys turned somersaults down from the loft to the floor below, or the kingfisher with a broken wing which rewarded all kind-hearted people who wished to mend his wing, or feed him, by slicing their fingers with his sawlike bill. Oh, those were glorious days! I simply hated to go to bed at night for fear I would miss something.

Then our long hikes to Blue Hole—

The gypsy taint was in my blood—
The message cheats me still;
Yet I believe that Paradise
Is just beyond the hill.

That delightful, mysterious pool which nestled in the cleft among the rocks below an old mill with a big water wheel. Rumor said that there was no bottom to the pool, and we believed the rumor. I believe it now, and I think I would be tempted to thrash the man who would shatter my faith and prove to me that Blue Hole really had a bottom to it like any other pool. Glory be! I can smell the pine now, I can see the moss on the rocks dripping with moisture, the luxuriant growth of ferns, the old red fox stealing along the rocks upon the opposite side, and our Man Friday catamaran made of logs moored to the shore, the raft which we rowed and from which we swam and fished.

Mother always used to make me promise, when I went swimming, not to go over my head, and I religiously obeyed her commands, but somehow or another when we took our fishing rods and went to Blue Hole she forgot to say anything about it. Tom was with me, but poor Hi, he had to stay at home in Kentucky while Tom and I dived into that deep water and swam around experiencing a joy and happiness only to be duplicated in Heaven.

When I look into a glass
I see a fool;
But I see a wise man
When I look into a pool.

Under an overhanging rock, in the deep blue water, lurked the biggest rock bass I had ever caught, but we never took any fish back to the hotel to be spoiled by professional cooks. No sir-ree! we cooked and ate them on the shore of Blue Hole, where I learned lessons in the culinary art and fire-building which I have been teaching you boys and your fathers for the last forty years.

General Smith's son had a shotgun, and in those days everybody shot any wild creature that they could hit regardless of season and without restriction of game laws. It was a murderous and thoughtless way of doing, but I have since learned that it hurts one's head to think—if you don't believe it, try it—so when I saw a jay bird roosting on a pine tree I took aim at him and fired. The bird fell at my feet; then for some reason I felt sorry and realized

that only a live bird is charming. Nobody had ever told me that it was wrong to kill needlessly. Nevertheless, when I picked the poor dead thing up to admire its beautiful plumage I sadly handed the gun back to General Smith's son and many years elapsed before I again fired a fowling piece.

There was an old fellow at the mill who taught us how to make wire snares with which to catch mud-suckers. Tom discovered a big mud-sucker in the bottom of a brook where the stream meandered through the meadow, so I fixed the copper noose on the short line to my pole and carefully slipped the noose over the sucker's head down to his fat waist without disturbing the stupid fish. With nerves tense and all excited I gave a mighty jerk, the noose came up in the air, caught on a branch overhead, but to our amazement it contained no fish.

The commotion stirred up the mud in the bottom of the stream, and as soon as it settled we saw the poor old sucker cut as neatly in half as if it had been done with a cleaver by a butcher.

A butcher is a bloody sort of a fellow, but blood always seems to have a fascination for small boys and Tom and I played a bloody game. We would each wade into that muddy stream, then shout "all out!" after which we would sit on the shore and pull the leeches off our legs, bloodsuckers we called them. The fellow who had the most leeches won the game. I don't know what our dear mammas would have thought of this game, or even our daddies, and we never learned their opinion, the incident was not mentioned when we reached home.

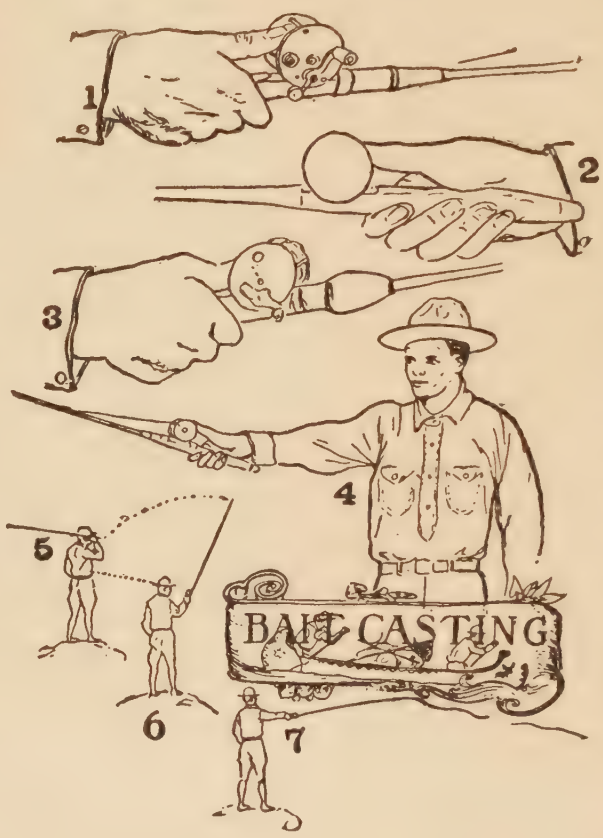
Since those days, when Tom and I had such glorious times, I have fished from the Atlantic to the Pacific, from away up in the Hudson Bay country down to the toe of Florida. I have caught big trout, small-mouthed black bass, regular sockdolagers of over six pounds, but somehow or another, although I have enjoyed myself and enjoyed the open, the sounds of the wilderness, the roaring of the torrents, the whispering of the pines, the talking leaves—Yes, somehow or another, to use a homely expression, the cookies never taste like those that grandmother made. I have used the fly, I have used bait, I have used all the different sorts of lures, and when bait-casting came in I took that up too, and now I must tell you something about it.

For bait-casting one uses a much shorter and stiffer rod than that used for still fishing or fly-fishing (Fig. 11). In selecting such a rod pick one about your own height. The whole art in bait-casting consists in having a good reel and A GOOD THUMB. I suppose you think your thumb is all right, but what I mean is a well-trained thumb. You will note in Figs. 1, 2, 3, and 4 that the thumb is holding what we term the spool (that is where the line is wound on the reel), and the speed with which the line unwinds from the reel when the bait is cast is regulated entirely by the pressure of the thumb. Fig. 3 shows the short hold, Figs. 1, 2, and 4 show the long hold of the thumb, but this is a matter you must regulate yourself by experience.

Practice until you acquire the best and most convenient way of governing the line with your individual and particular thumb, which is probably different from the other fellow's thumb—no two fellows' thumbs are alike. You need a reel that will run freely and smoothly (Fig. 10), not necessarily a very expensive reel, but it should be what is known as a multiplying reel; a quadruple multiplier is best. Keep this in good order, take it apart, clean it and oil it and be as careful of it as you would be of your watch.. Use a line about twelve-pound breaking weight; do not try a

clumsy line—you need one that will work free; and if you are real fishermen you will take great care of your line and dry it after each day's fishing. Nobody but a dub, a tenderfoot, cheechako, will leave a wet line on a reel all night. Such treatment rots the best of lines. Some experts use what is known as a soft silk line.

When you have your tackle ready, attach a small object to the end of the line weighing about a half an ounce, hold the rod securely, but don't grab it as if you were trying to squeeze the juice out of the butt; hold it firmly and naturally. Allow about ten inches of line, with the weight attached, to dangle from the end of the rod. Keep the padded part of your thumb tip pressed firmly on the spool and bring the rod back over your shoulder until your thumb is about opposite your ear (Fig. 5) or your wrist in line with your nose, and the rod horizontal. Now bring your rod up with an even quick swing, start with a wrist movement (Fig. 7) and finish with wrist and forearm, the forearm aiding the wrist in speeding up the movement to the end.



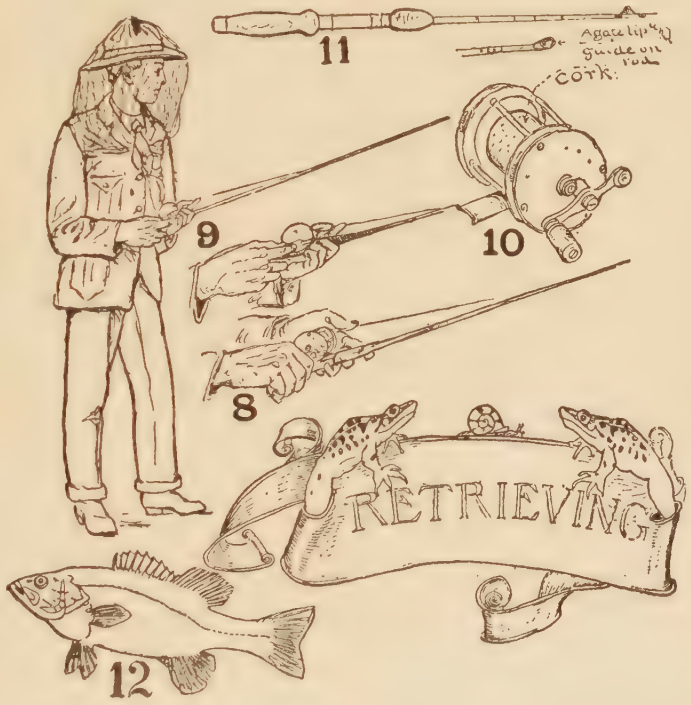
The thumb gradually lessens its pressure on the spool as the rod rises, and is probably at its least pressure when the rod is in the upright position of Fig. 6, which allows the rod to cast the weight forward just as one throws an impaled potato from the end of a stick. When the weight has almost reached the highest point of the cast gradually increase the thumb pressure; as the line runs out the rod is lowered with the tip point following the weight at the end of the line as the latter descends — when the weight strikes the target, ground, or water, the rod should be about horizontal — then change hands so that you may use your right hand with which to wind the reels (Figs. 8, 9, and 10).

In practicing use a target. Make this target of a dark object on the snow if it is winter time, or if it is summer time, peg down three pieces of newspaper about the size of dinner plates, one at twenty-five feet, one at fifty feet, and one at seventy-five feet from the tawline where you stand, and practice until you can make your lure alight on the targets. When you can strike the fifty-foot target with some degree of certainty, you can trust yourself on the lake, river, or pool with a real lure and the feeling that you are going to hook a real fish.

Don't be discouraged when your line overruns or back reels and becomes

tangled up in the most unaccountable way. If this does not happen on your first attempt it will be because you are a natural born, phenomenal bait-caster, but it *will* occur, and you may have to take a hairpin and work a half hour on the line to untangle it. I have had to do that with a big fish on the end of the line, and he got loose before the line did. The cause of this is improper thumbing of the line—the line was allowed to run out too suddenly.

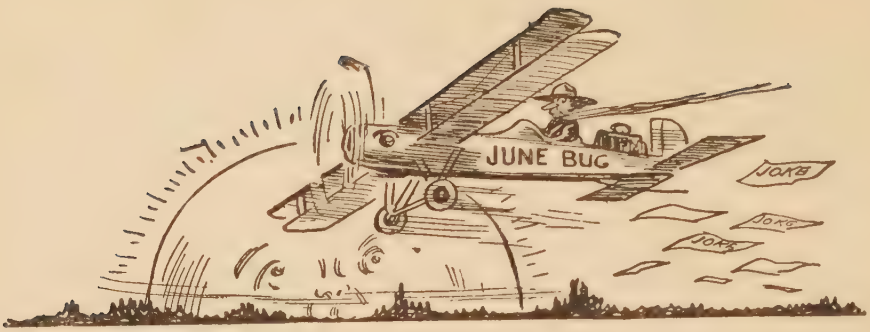
When the weight is over the target, check the reel by pressing the thumb lightly on the spool of the reel, which will stop the weight and allow it to drop lightly upon the target. Just as the bait strikes elevate the tip of the rod a trifle, then begin to reel in, for in order to catch fish the lure must be constantly moving.



Now grasp the rod with the second and third fingers, and little finger of the left hand, leaving the thumb and first finger free to guide the line on the reel as you wind it (Fig. 9). Place the butt of the rod against the body and wind the reel with the right hand, using the thumb and first finger to so guide the line that it will wind easily over the whole spool, or hold it as in Fig. 8 and use thumb only to guide the line.

When fishing for real fish, black bass (Fig. 12) in particular, one uses the bait best adapted to the water in which one fishes. Crawfish, called crabs by country boys, are good bait in waters where the crawfish themselves live; crickets, minnows, hellgrimites, which are also known as dobsons, bogarts, and alligators, are loved by bass. But in casting we do not need to impale live creatures on the hook; we can use the artificial lures which make much cleaner and more sportsmanlike work; but one must be very careful in handling lures with gangs of hooks. I speak feelingly as I had a man sink one of these hooks in my fingers and pull a half inch of the nerve of the finger out.

Incidentally I may mention that I was never dumped overboard, stuck with a hook, or had any of the minor accidents, painful and unpleasant, which may occur to one hunting and fishing except said accident that was caused by some bungling tenderfoot, in other words, by some untrained person. A good scholar is a well-trained scholar, a good soldier is a well-trained soldier, a good fisherman is a well-trained fisherman, *a good scout is a well-trained scout,* and it all comes from careful practice and observation. Learn by doing, but books offer many suggestions.



Think and Grin

Edited by Francis J. Rigney

Salt

"What is salt?"

"Salt is that which causes potatoes to taste not so nice when there's none on them."

Reserve Strength

Sam: "Yo ain't got no brains."

Tam: "Ain't got no brains? Why man, ah got brains what ain't nevah ben used."

Some Guess

Mrs. Harris (seeing sky-writing for first time): "Say Mrs. Higgins, what's that?"

Mrs. Higgins: "I dunno unless it be some o' that wireless caught fire."

He Was

Student (writing home): "How do you spell 'financially'?"

Other: "F-I-N-A-N-C-I-A-L-L-Y, and there are two R's in embarrassed."

Hurt His Reputation

Rastus had a reputation of being the best mule tender in the State. One day he showed up walking on crutches, and all bandaged up. A friend asked him, "What happened, Rastus, Ah thought youse had the best reputation in the State for mule tending?"

"So Ah has, but yesterday we got in a new mule who didn't know mah reputation!"

Correct

Tenderfoot (asking ninety-eighth question): "Is a vessel a boat?"

First Class Scout (trying to study): "Well, yes, you might call a vessel a boat."

Tenderfoot: "Then what kind of a vessel is a blood vessel?"

First Class Scout: "A lifeboat, of course; now get out of here."

Not a Scout

Customer: "Have I the pleasant expression you require?"

Photographer: "Yes sir."

Customer: "Then shoot quick, it hurts my face."

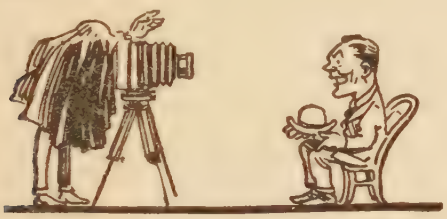


Figure This Out

A farmer had 90 eggs that he wanted to sell. He called his three sons and gave the first 50 eggs, the second 30 eggs, and the third 10 eggs. He said, "You must all sell these eggs and the rest must sell theirs at the same price each or per dozen and bring home the same amount of money without exchanging any eggs or money."

The solution:

The first sold 49 of his eggs at 7 for 1 cent and his other egg for 3 cents, making 10 cents.

The second sold 28 of his eggs at 7 for 1 cent and his other two eggs at 3 cents each, making 10 cents.

The third sold 7 of his eggs for 1 cent and his other 3 at 3 cents each, making 10 cents.

Airing Her Views

Mandy: Rastus, you-all reminds me of one of dese flyin' machines.

Rastus: 'Cause I'se a high-flyer, Mandy?

Mandy: No, 'cause you ain't no good on earth.

A Sea Dog

Willie's reading lesson was about ships. He came to a word he could not pronounce.

"Barque," prompted the teacher.

Willie looked at his classmates and laughed.

"Barque!" exclaimed the teacher harshly.

Willie, looking up at his teacher: "Bow-wow!"

Couldn't Fool Him

City (pointing to haystack): "What kind of a house is that?"

Country: "That ain't a house, that's a haystack."

City: "Say, you can't fool me. Hay doesn't grow in a lump like that."

See the Point?

Jack: "See this stickpin? Well, it once belonged to a millionaire."

Dick: "And who is the millionaire?"

Jack: "Woolworth."

Obeyed

Boss: "Rastus, you good-for-nothing scamp, where have you been loafing all day? Didn't I tell you to lay in some coal?"

Rastus: "Yassuh. Ah's been layin' in de coal all day, tho dere is lots of softer places whar Ah'd ruther lay."

He Gave it Gas Too

An absent-minded dentist had to crawl under his auto to make some adjustment in the machinery. Applying the monkey wrench to it, he said soothingly, "Now this is going to hurt just a little."

The Reason

Tenderfoot: "My hair is full of electricity."

Wise First Class Scout: "Well, it's connected to a dry cell."

A Spring Tragedy

I woke to look upon a face
Silent, white and cold.
Oh, friend, the agony I felt
Can never half be told.
We'd lived together but a year:
Too soon it seemed, to see
Those gentle hands outstretched and still,
That toiled so much for me!
My wakening thoughts have been of one
Who now to sleep had dropped.
'Twas hard to realize, oh, friends,
My dollar watch had stopped.

Tolled Him

"Cufee, is that the second bell?"

"No, massa, dat's de second ringing ob de fuss bell. We habn't got no second bell in dis hotel."

Making It Clear

Aunt: "Can you explain wireless telegraphy to me, Arthur?"

Arthur: "Well, if you had a very long dog, reaching from London to Liverpool, and you trod on its tail in London, it would bark in Liverpool. That's telegraphy, and wireless is precisely the same only without the dog."

High

City Nephew: "This is the stock exchange, uncle. The seats here are worth thousands of dollars."

Uncle Wayback: "Oh, is that it? I was jest wonderin' why ev'rybody was standin' up."

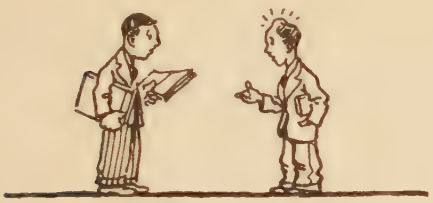
A Big Drop

"Do you realize what wonders there are in a drop of water?"

"Yes, my wife and I spent my vacation looking at one."

"What, gazing at a drop of water?"

"Uh huh! Niagara Falls."



Hard Thoughts

First Student: "What is that bump on your forehead?"

Second Student: "Oh, that's only where a thought struck me."

Over and Over

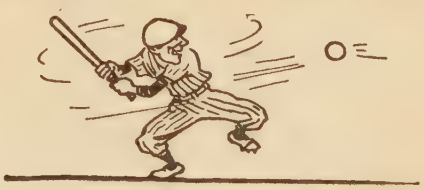
Tenderfoot: "Look at that aviator looping the loop."

First Class: "He used to be a Boy Scout and he still does his daily good turns."

One of them

Artist: "One thousand wouldn't buy this picture."

Onlooker: "Well, I'm one of the thousand."



Sure Shot

Lady (watching a baseball game): "Isn't he a fine pitcher—he always hits their bats, no matter where they hold them."

Call of the Canyon

Tourist: "Call me about 6 A. M., will you, guide?"

Guide: "'Taint necessary. When y' go t' bed yell, and the echo will wake ye up 'bout sunrise."

On Principle

Farmer: "Don't you see that sign, 'Private—No Fishing Allowed?'"

Fisherman—"I never read anything marked 'Private.'"

Well, Well

"Willie," said his mother, "I wish you would run across the street and see how old Mrs. Brown is this morning."

A few minutes later Willie returned and reported:

"Mrs. Brown says it's none of your business how old she is."

Think and Grin

Clean Up

Burt: "Oh, look. The players are covered with mud. How do you think they will get it off?"

Ray: "What do you think the scrub team is for?"

Prevention

Doctor: "Are you sure you have done everything to prevent contagion in this family?"

Rastus: "Yassuh. Ise done bought a sanitary drinking cup and we all drink from it."

Snappy

Barber: "Do you want a hair cut?"
Patient: "I want them all cut."
Barber: "Any particular way, sir?"
Patient: "Yes off, sir."

The Same

"Has Bill changed much in the years he has been away?"

"No. But he thinks he has."

"How so?"

"Why he is always talking about what a fool he used to be."

This Isn't a Dry One

Patrol Leader: "When rain falls does it ever rise again?"

Bright Tenderfoot: "Oh, yes, in dew time."

Late

Professor (to tenderfoot entering class late): "When were you born?"

Tenderfoot: "On the second of April."

Professor: "Late again."

Necks Please

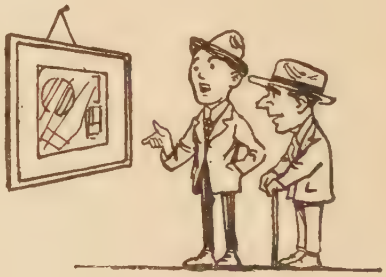
Johnny: "They say a camel can go two weeks without any water."

Father: "Yes, a little drink goes a long way with a giraffe too."

Head Work Mostly

Boy: "What are gentlemen farmers?"

Father: "Gentlemen farmers are farmers who raise their hats but very little else."



The Reason

Joe: "Why did they hang that awful picture?"

Jim: "I expect they couldn't find the artist."

Life Saving

Billy and Silly were sailing on a river, when the boat capsized. Billy who was a poor swimmer was struggling around near where the boat had sunk, but Silly who was a good swimmer swam ashore. Silly climbed out on the bank, shook himself a little and plunged in again and swam out toward Billy. "Where you goin'?" yelled a friend.

"Sure," said Silly, "I had to save myself first, but now I have to save Billy."

A Flivver

Stalled Motorist: "Know anything about cars like mine?"

Bright Boy: "Yes. About 1,000 jokes."

A Lesson in Politeness

He was a scout that weighed but a scant 280 pounds. He skidded on a banana skin and subsided very gently into a crate of eggs. The polite storekeeper came out to assist him to arise from the crate of hen fruit.

"Oh, I do hope I have not broken them," said the scout.

"Not at all, sir," said the polite store keeper, "they're only bent a little."

Ask Me Another

Scoutmaster: "Supposing there was an explosion and a man was blown into the air. As the nearest doctor was being called in what would you do?"

Tenderfoot: "Wait for the man to come down again."

Lasting

A humorous Irishman, hearing of a friend who had a stone coffin for himself, remarked, "Faith, that's good. Sure and a stone coffin 'ud last a man a lifetime."

Nothing in it

Teacher in Geometry Class: Who will define a circle?

Johnny: A circle is a round straight line with a hole in the middle.

Eh?

Scoutmaster: "What is the best method to prevent the disease caused by biting insects?"

Tenderfoot: "Don't bite the insects."

Think and Grin

Then the Subject Dropped

An annoyingly inquisitive person was questioning the parachute jumper about his experience and sensations while falling through the air.

"But what do you do if your parachute refuses to open while you are falling?" she finally asked.

"Take it back up and fix it," was the answer.

Extinct

Examiner for Bird Study Merit Badge: "You seem to be a very bright boy. Give me a name of a bird which is extinct."

Scout: "Cuthbert."

Examiner: "Cuthbert? What kind of a bird is that?"

Scout: "It's our canary; the cat ate it last night."